

# EXHIBIT 15

**CONFIDENTIAL**

1 UNITED STATES DISTRICT COURT  
2 SOUTHERN DISTRICT OF NEW YORK  
3  
4 SECURITIES AND EXCHANGE )  
COMMISSION, )  
5 )  
Plaintiff, )  
6 )  
v. )  
7 ) Case No.  
RIO TINTO PLC, RIO TINTO ) 17-cv-07994-AT-DCF  
8 LIMITED, THOMAS ALBANESE, )  
and GUY ROBERT ELLIOTT, )  
9 )  
Defendants. )  
10 \_\_\_\_\_ )  
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13 CONFIDENTIAL  
14 VIDEO DEPOSITION OF GLENN HUBBARD, PH.D.  
15 VIA VIDEOCONFERENCE  
16 Friday, June 26, 2020  
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24 Reported by:  
Lori J. Goodin, RPR, CLR, CRR,  
RSA, California CSR #13959  
25 Job No. 200626LJG

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 ) Case No.  
RIO TINTO PLC, RIO TINTO ) 17-cv-07994-AT-DCF  
LIMITED, THOMAS ALBANESE, )  
and GUY ROBERT ELLIOTT, )  
 )  
Defendants. )  
\_\_\_\_\_ )

Deposition of GLENN HUBBARD, PH.D.,  
taken on behalf of Plaintiff, at  
Washington, D.C., beginning at 9:29 a.m.  
and ending at 5:20 p.m. on Friday,  
June 26, 2020, before LORI J. GOODIN,  
RPR, CLR, CRR, RSA, California CSR #13959.

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A P P E A R A N C E S:

ALSO PRESENT:

Guy Robert Elliot, Defendant  
Thomas Albanese, Defendant  
Kevin Gold Analysis Group  
Nishi Sinha, Analysis Group  
  
Glen Fortner, Videographer

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INDEX

WITNESS: Page

GLENN HUBBARD, PH.D.

EXAMINATION BY MR. BEDNAR 11

\* \* \*

**CONFIDENTIAL**

1	EXHIBITS INDEX		
2	No.	Description	Page
3	Exhibit 1100	Dr. Hubbard's CV	275
4	Exhibit 1101	Appendix B, Documents	
5		Considered	25
6	Exhibit 1108	Appendix C.8, Summary of	
7		Equity Analysts' Reactions	267
8	Exhibit 1115	Exhibit 4 of Dr. Hubbard's	
9		report	80
10	Exhibit 1116	Exhibit 5 of Dr. Hubbard's	
11		report	35
12	Exhibit 1118	Exhibit 7 of Dr. Hubbard's	
13		report	212
14	Exhibit 1127	Hubbard and Palia paper, 1995	39
15	Exhibit 1133	Wall Street Journal article	
16		4/8/11	114
17	Exhibit 1134	Market Watch article, 4/8/11	111
18	Exhibit 1135	Market Watch article, 4/8/11	115
19	Exhibit 1138	Hobart Mercury article, 4/8/11	117
20	Exhibit 1139	Hobart Mercury article, 4/8/11	118
21	Exhibit 1140	Metals Bulletin, 4/8/11	120
22	Exhibit 1144	Xinhua News Agency article,	
23		4/8/11	110
24	Exhibit 1148	Dolmen Daily article, 4/8/11	198

**CONFIDENTIAL**

1	EXHIBITS INDEX (CONTINUED)		
2	No.	Description	Page
3	Exhibit 1162	HP Billiton 2011 Annual	
4		Report	181
5	Exhibit 1165	Xstrata 2011 Annual Report	188
6	Exhibit 1166	AngloAmerican 2011 Annual	
7		Report	175
8	Exhibit 1209	Dow Jones International	
9		article, 4/8/11	110
10	Exhibit 1210	Edwards expert report, 2/21/10	208
11	Exhibit 1215	Financial Review article,	
12		4/8/11	197
13	Exhibit 1247	screenshot, Rio Tinto bond	241
14	Exhibit 1248	screenshot, Rio Tinto bond	241
15	Exhibit 1249	screenshot, total volume of	
16		1/17/13, Rio Tinto	
17		transaction	243
18	Exhibit 1250	screenshot, 1/17/13, trades	
19		for Rio Tinto	241
20	Exhibit 1257	PricewaterhouseCoopers,	
21		Mine, The Growing Disconnect	146
22	Exhibit 1258	screenshot of U.S. Energy	
23		Information Administration	141
24			
25			

**CONFIDENTIAL**

## 1 EXHIBITS INDEX (CONTINUED)

2

## 3 PREVIOUSLY MARKED EXHIBITS

## 4 PRIOR MARKED EXHIBITS FIRST REFERRAL

5 Exhibit 14 130

6 Exhibit 212 133

7 Exhibit 224 14

8 Exhibit 225 165

9 Exhibit 445 195

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13 \*\* EXHIBITS BOUND SEPARATELY \*\*

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Washington, D.C., Friday, June 26, 2020

9:29 a.m. - 5:20 p.m.

\* \* \*

THE VIDEOGRAPHER: Here begins Tape

Number 1 in the videotaped deposition of

Dr. Glenn Hubbard, in the matter of

Securities and Exchange Commission, v Rio

Tinto, PLC, et al. in the United States

District Court for the Southern District of

New York, Case Number 17-cv-07994-18-DCF.

Today's date is June 26, 2020. The  
time on the video monitor is 9:29 eastern  
time.

The videographer today is Glen  
Fortner representing Gradillas Court  
Reporting. This deposition is being  
conducted by WebEx, and being recorded in  
Tyson's Corner, Virginia.

Counsel will be noted on the  
stenographic record.

The court reporter today is Lori  
Goodin representing Gradillas Court Reporting.

Will the reporter please swear in  
the witness.

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\* \* \*

Whereupon,

GLENN HUBBARD, PH.D.,

a witness called for examination, having been  
first duly sworn, was examined and testified as  
follows:

\* \* \*

MR. BEDNAR: And, Mr. Kirsch, did  
you want to put something on the record?

MR. KIRSCH: Thanks so much, Tom.

Yes, just to note that the reason Dr. Hubbard  
appears to be taking the video from home, as  
we all are, is because we are, in fact, at  
home due to the pandemic. Thank you.

\* \* \*

**EXAMINATION**

BY MR. BEDNAR:

Q. Dr. Hubbard, good morning. My name  
is Tom Bednar. I am an attorney for the  
Securities and Exchange Commission.

I wanted to go over a few sort of  
basic ground rules related to the fact that we  
are all doing this from our respective homes.

Were you provided with a copy of  
certain stipulations that the parties entered

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09:30:41 1 into with respect to these depositions?

09:30:42 2 A. Yes, sir.

09:30:44 3 Q. Okay. And, did you have a chance to  
09:30:46 4 go over those with some of the counsel that are  
09:30:49 5 present on the line today?

09:30:50 6 A. I don't recall that. I went over  
09:30:54 7 them with counsel. But, I am familiar with them,  
09:30:56 8 yes.

09:30:57 9 Q. Sure. And do you understand the  
09:30:59 10 stipulations that apply to the deposition?

09:31:01 11 A. I do.

09:31:02 12 Q. Okay. And, did you receive hard  
09:31:08 13 copies of exhibits that the SEC indicated that it  
09:31:13 14 may use today?

09:31:15 15 A. Yes, I have three binders, almost as  
09:31:18 16 tall as I am right by me, which contain all of  
09:31:22 17 the exhibits by number. So, it should be easy  
09:31:24 18 for me to refer to them as you are.

09:31:26 19 Q. Okay. Don't let those fall over  
09:31:29 20 because they may crush you.

09:31:31 21 I will also be able to display  
09:31:34 22 exhibits on the screen which I will do so that  
09:31:36 23 the parties all can see what page we are on.  
09:31:39 24 Whatever is easiest for you, you can feel free  
09:31:42 25 to do.

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09:31:42 1 Do you have any other materials with  
09:31:44 2 you today?

09:31:45 3 A. No, just these massive binders.

09:31:48 4 Q. Okay. If at any point during the  
09:31:55 5 questioning you need a break, please feel free to  
09:31:58 6 let me know.

09:31:58 7 One thing that we have learned in  
09:32:03 8 these remote video depositions is that it seems  
09:32:08 9 to be a little easier than usual for people to  
09:32:11 10 inadvertently talk over each other, particularly  
09:32:14 11 if there is a video lag.

09:32:16 12 So, I just ask that you try to let  
09:32:18 13 me finish my questions. I will certainly try to  
09:32:20 14 let you finish your answers before I proceed.  
09:32:22 15 That also allows time for any of the counsel for  
09:32:25 16 the parties to interpose objections.

09:32:29 17 We can agree at the outset, counsel,  
09:32:31 18 that if counsel for one party objects, that  
09:32:36 19 preserves the objections for all parties. You  
09:32:39 20 don't need to all object.

09:32:40 21 Mr. Kirsch, do you know, will you be  
09:32:46 22 sort of the primary objecter, or could it be  
09:32:49 23 anyone?

09:32:50 24 MR. KIRSCH: It could be anyone.

09:32:50 25 MR. BEDNAR: Okay.

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09:32:55 1 MR. KIRSCH: But, certainly we agree  
09:32:56 2 an objection for one is an objection for all.

09:32:59 3 MR. BEDNAR: Of course. And the  
09:32:59 4 only reason I ask that is, counsel, I would  
09:33:01 5 ask that if you do object, please just state  
09:33:04 6 your last name with your objection.

09:33:05 7 That makes it easier for the  
09:33:07 8 reporter, who may not have your video in  
09:33:10 9 front of her. And it also means that I don't  
09:33:13 10 have to have an extended call. It usually  
09:33:16 11 means that everyone forgets the question and  
09:33:19 12 I have to ask it again and object to it  
09:33:21 13 again.

09:33:21 14 BY MR. BEDNAR:

09:33:21 15 Q. And with that, I think we can go  
09:33:23 16 ahead, Doctor.

09:33:33 17 Dr. Hubbard, I wanted to just start  
09:33:35 18 with something very basic and put an exhibit up  
09:33:35 19 on the screen to identify that we will be  
09:33:43 20 referring to frequently throughout the course of  
09:33:43 21 today.

09:33:43 22 (Whereupon, previously marked  
09:33:43 23 Exhibit 224, first referral.)

09:33:43 24 BY MR. BEDNAR:

09:33:44 25 Q. This has been marked previously as

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09:33:45 1 Defendant's Exhibit 224.

09:33:51 2 And do you recognize that exhibit?

09:33:53 3 A. Yes, I do. It is the expert report  
09:33:56 4 that I filed. I pulled that one out of the  
09:33:58 5 binder, figuring you might have a few questions.

09:34:09 6 Q. And I'm going to skip to the 98th  
09:34:14 7 page of the PDF, which is the 94th page of your  
09:34:18 8 report. Is that your signature?

09:34:18 9 A. Yes, it is.

09:34:19 10 Q. And then scrolling up to the page  
09:34:19 11 above. It is a 93-page report; is that correct?

09:34:21 12 A. Yes, before getting to some  
09:34:24 13 supplementary material text, yes.

09:34:26 14 Q. Sure. And you can see at the top of  
09:34:28 15 the screen, the PDF is 287 pages, which does  
09:34:32 16 include the appendices and the exhibits that are  
09:34:34 17 in the back.

09:34:35 18 Doctor, in preparing this report,  
09:34:44 19 did you include in the report all opinions that  
09:34:46 20 you reached in your work?

09:34:50 21 A. Certainly if the question is at the  
09:34:52 22 time that I wrote the report, the answer is yes.

09:34:55 23 Q. Have you come to any other opinions  
09:34:57 24 since you submitted the report in February?

09:34:59 25 A. I have.

**CONFIDENTIAL**

09:35:00 1 Q. On what subjects have you come to  
09:35:02 2 new opinions?

09:35:05 3 A. I came to some additional opinions  
09:35:08 4 actually following the deposition discussion with  
09:35:12 5 Dr. Metz on topics that came up there, obviously  
09:35:16 6 subsequent to my report or even his rebuttal  
09:35:19 7 report.

09:35:21 8 Q. And what topics did you come to have  
09:35:24 9 opinions on?

09:35:24 10 A. Opinions on sensitivity to different  
09:35:27 11 formulation of various indices that Dr. Metz and  
09:35:36 12 I have disagreed on.

09:35:43 13 Q. And what indices are you thinking  
09:35:46 14 of?

09:35:46 15 A. I'm thinking of in particular about  
09:35:51 16 the choice of an industry index. As you know,  
09:35:51 17 Dr. Metz and I have a number of disagreements  
09:35:54 18 there.

09:35:54 19 But, in particular, he had raised  
09:35:56 20 some concerns about the HSBC Mining Index, which  
09:35:59 21 I use in my report.

09:36:00 22 I don't think those concerns are  
09:36:03 23 important. But, I did sensitivity analysis, some  
09:36:06 24 of which he could have easily done himself,  
09:36:10 25 others are more difficult, to bolster my results,

**CONFIDENTIAL**

09:36:15 1 and no conclusion changed.

09:36:17 2 Q. Did you come to any additional  
09:36:22 3 opinions with respect to other industry indices  
09:36:26 4 that were referred to in any of the other expert  
09:36:28 5 reports?

09:36:28 6 A. Depending on what you mean by that  
09:36:30 7 question, yes. So, to the question about the  
09:36:36 8 HSBC index, I went to IHS Market, which now  
09:36:40 9 maintains the successor to that index, and was  
09:36:44 10 able to obtain the individual --

09:36:46 11 Q. And, Doctor, I'm sorry. Maybe I  
09:36:48 12 should clarify.

09:36:48 13 I'm sorry to cut you off. I should  
09:36:50 14 clarify my question. I'm referring to did you  
09:36:52 15 come to any opinions with respect to other  
09:36:56 16 industry indices besides the HSBC index?

09:36:59 17 THE WITNESS: Well, yes and no. It  
09:37:00 18 is in that context.

09:37:02 19 I did also come to opinions on the  
09:37:06 20 H8 measure and other HN measures, if you  
09:37:09 21 will, numbers of companies.

09:37:10 22 But, it is all derivative of his  
09:37:13 23 concerns about HSBC. That is why I was  
09:37:15 24 starting to answer the way I did. But, I  
09:37:17 25 apologize.

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09:37:21 1 BY MR. BEDNAR:

09:37:21 2 Q. And so specifically what did you do  
09:37:22 3 with respect to the H8 group of eight comparator  
09:37:27 4 firms?

09:37:27 5 A. Well, for the H8, he had raised a  
09:37:30 6 concern about being in the data every year, as  
09:37:38 7 opposed to just one year. He had constructed, of  
09:37:42 8 course, a meta index, called H16.

09:37:45 9 It was anybody who had been in at  
09:37:45 10 least one year. He seemed to criticize me on not  
09:37:48 11 having every year.

09:37:48 12 So, I went through seven of the  
09:37:50 13 eight were there every year. Newmont isn't, so I  
09:37:54 14 took it out. And I get essentially the same, the  
09:37:57 15 same result.

09:38:01 16 Q. And Newmont is a gold company?

09:38:04 17 A. Yes, it is a general mining company,  
09:38:06 18 but yes, gold.

09:38:08 19 Q. Did you run any sensitivities where  
09:38:15 20 you added one or more companies to that eight-  
09:38:18 21 company list?

09:38:19 22 A. I didn't -- Dr. Metz, I think, in  
09:38:23 23 his deposition had mentioned adding Teck and  
09:38:26 24 Peabody, if I am remembering.

09:38:28 25 I did add those. And, he would be

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09:38:33 1 correct I think with regard to Tech, that if you  
09:38:35 2 added it, you could get a statistically  
09:38:39 3 significant return.

09:38:40 4 But, as you know, I don't think that  
09:38:41 5 is appropriate, nor frankly do I think the whole  
09:38:45 6 exercise was beneficial.

09:38:51 7 Q. Why not?

09:38:52 8 A. Well, there is no economic question  
09:38:55 9 facing the court that this part of his report  
09:38:56 10 addresses.

09:38:56 11 The question of whether the  
09:38:59 12 acquisition was accreted has absolutely nothing  
09:39:02 13 to do, nothing from an economic perspective, with  
09:39:05 14 the question of the reaction to an impairment.

09:39:08 15 The acquisition could have been  
09:39:10 16 accreted. It could have been exactly the right  
09:39:12 17 price, or it could have been value destroying.

09:39:16 18 But, in any of those cases, the  
09:39:19 19 impairment discussion could have been analyzed.

09:39:21 20 So, that part of the report simply  
09:39:23 21 has nothing to do with an economic question I  
09:39:26 22 understand.

09:39:27 23 Q. You don't think the question of  
09:39:40 24 whether the market responded positively to the  
09:39:42 25 Riversdale acquisition is relevant to the

**CONFIDENTIAL**

09:39:42 1 question of the eventual write-down of that  
09:39:44 2 acquisition?

09:39:44 3 A. It most certainly is not. And so,  
09:39:47 4 for example, we know from most studies that  
09:39:52 5 acquisitions generally aren't accreted. It  
09:39:54 6 wouldn't matter.

09:39:55 7 Let's suppose the firm paid exactly  
09:39:57 8 the right price. And so if you paid exactly the  
09:39:59 9 market's definition of fair market value, you  
09:40:02 10 wouldn't expect a stock price increase.

09:40:04 11 Yet, arguably, you could still  
09:40:07 12 analyze an impairment. Frankly, you could  
09:40:09 13 analyze an impairment if you had overpaid the  
09:40:13 14 firm.

09:40:13 15 So, if the question before the court  
09:40:15 16 is about an impairment, which I think is an  
09:40:18 17 economy statement, then this earlier discussion  
09:40:20 18 simply has nothing to do with that from an  
09:40:22 19 economic perspective.

09:40:24 20 If it is there, I assume there is  
09:40:25 21 some legal argument, with zero economic relevance.

09:40:28 22 Q. When did you reach the opinion that  
09:40:32 23 the issue of whether the acquisition was accreted  
09:40:36 24 had no economic relevance?

09:40:39 25 A. I think the moment -- it is

**CONFIDENTIAL**

09:40:53 1 absolutely silly.

09:40:54 2 Q. And do you state that opinion in  
09:40:56 3 your report in this case?

09:40:57 4 A. Well, in my report I simply go  
09:41:00 5 through the problems with what Dr. Metz did, as a  
09:41:05 6 rebuttal to him. That is the assignment that I  
09:41:08 7 had.

09:41:08 8 But, the whole exercise isn't worth  
09:41:11 9 doing, from an economic perspective. A court may  
09:41:14 10 find it valuable for some other reason. That is  
09:41:16 11 fine. But not from an economic perspective.

09:41:19 12 Q. Is there a particular reason why you  
09:41:25 13 didn't disclose your opinion that the exercise  
09:41:28 14 that you were responding to in your rebuttal  
09:41:31 15 report was not worth doing?

09:41:33 16 MR. KIRSCH: Objection, lack of  
09:41:34 17 foundation.

09:41:38 18 THE WITNESS: No, I think it is  
09:41:40 19 pretty clear from the tone of my report what  
09:41:42 20 I think of Dr. Metz's exercises.

09:41:44 21 I guess I didn't see the need. I  
09:41:46 22 think it would -- the point I'm making is an  
09:41:49 23 Econ 101 point. It is not difficult.

09:41:58 24 BY MR. BEDNAR:

09:41:58 25 Q. And is that based on your conclusion

**CONFIDENTIAL**

09:42:04 1 that there was no statistically significant price  
09:42:07 2 or action for impairment on January 17th, of  
09:42:11 3 2013?

09:42:11 4 A. No, that is a different point. That  
09:42:13 5 is on Dr. Metz's playing field, what do I think  
09:42:16 6 about what he did.

09:42:17 7 This is a larger point that the  
09:42:18 8 exercise simply isn't worth doing because knowing  
09:42:21 9 the answer to the question has no information for  
09:42:23 10 the question, I think is the one before the  
09:42:26 11 court, at least from an economic perspective.

09:42:29 12 Q. Have you come to any other opinions  
09:42:39 13 since you submitted your report in February?

09:42:41 14 A. Yes, sir.

09:42:43 15 Q. On what topics?

09:42:45 16 A. Again, going back to the industry  
09:42:49 17 index, I had started to talk about work with IHS  
09:42:54 18 Markit data, and then we got on to these other  
09:42:57 19 subjects.

09:42:57 20 IHS Markit maintains a successor to  
09:43:03 21 the index. I was able to get the individual  
09:43:05 22 elements and back out Rio Tinto from the index,  
09:43:11 23 or the dates for the event studies, which means I  
09:43:15 24 don't have to worry about any endogeneity by  
09:43:20 25 construction. And I get potentially the same

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09:43:23 1 answer.

09:43:23 2 I also noted in forming extra  
09:43:27 3 opinions for myself that if Dr. Metz were really  
09:43:31 4 concerned about endogeneity and thought it was a  
09:43:37 5 big deal, he could have induced endogeneity. In  
09:43:38 6 other words, he could have added Rio Tinto to  
09:43:40 7 other indices and see if it makes the difference.

09:43:43 8 I can spare him the trouble. I did  
09:43:45 9 that and it doesn't.

09:43:50 10 I have other opinions, too, if of  
09:43:54 11 use.

09:43:56 12 Q. What other opinions have you come  
09:43:58 13 to?

09:43:58 14 A. Another exercise I did just because  
09:44:01 15 I knew Dr. Metz could have, if he wished, was to  
09:44:05 16 look at the top ten elements of HSBC in order to  
09:44:15 17 see -- with Rio Tinto, in order to see using the  
09:44:23 18 ADR data, whether I get a different answer.

09:44:25 19 Because that is by definition not  
09:44:27 20 subject to his endogeneity critique. There is no  
09:44:30 21 Rio Tinto. And it is by definition not subject  
09:44:32 22 to the timing issue.

09:44:33 23 So, I'm using the ADRs, and I get  
09:44:36 24 essentially the same answer that I got before.

09:44:38 25 That I could do from a fact sheet.

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09:44:40 1 Subsequently, since I got the market  
09:44:42 2 data, I did top 15. That also gives the same  
09:44:45 3 answer that I presented in the report.

09:44:46 4 So, there were ways Dr. Metz could  
09:44:49 5 have used data, both that he had available to him  
09:44:52 6 or data that he could have obtained, as I did, if  
09:44:55 7 he wanted to check those.

09:45:18 8 Q. Dr. Hubbard, did you in your work on  
09:45:22 9 this case, have you conducted evaluation of  
09:45:26 10 Riversdale as of April of 2011?

09:45:29 11 MR. KIRSCH: Sorry, Tom. I couldn't  
09:45:30 12 hear you.

09:45:31 13 BY MR. BEDNAR:

09:45:32 14 Q. Dr. Hubbard, as part of your work on  
09:45:34 15 this case, have you conducted a valuation of  
09:45:37 16 Riversdale as of April of 2011?

09:45:39 17 MR. KIRSCH: Thank you.

09:45:40 18 THE WITNESS: If I'm understanding  
09:45:43 19 your question, no I did not. I was not asked  
09:45:46 20 to do that.

09:45:47 21 BY MR. BEDNAR:

09:45:52 22 Q. If asked to do that, could you have  
09:45:54 23 done so?

09:45:55 24 A. If I had the requisite information,  
09:45:59 25 I could do so.

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09:45:59 1 Of course, it would be the valuation  
09:46:01 2 as I see it. Would be one person's view, but I  
09:46:06 3 could certainly do it.

09:46:10 4 Q. What information would you need to  
09:46:12 5 conduct evaluation?

09:46:13 6 A. If one wanted to value something,  
09:46:16 7 depending on the method you use, you could use a  
09:46:19 8 discounted cash flow analysis, which in this case  
09:46:22 9 would require assumptions very long in the future  
09:46:26 10 about commodity prices, about GDP, about costs,  
09:46:31 11 and so on.

09:46:32 12 Lots of elements go into a forecast  
09:46:35 13 for valuation. Again not something I was asked  
09:46:38 14 to do.

09:46:38 15 (Exhibit Number 1101  
09:46:38 16 marked for identification.)

09:46:54 17 BY MR. BEDNAR:

09:46:54 18 Q. Doctor, if I can take you to  
09:47:13 19 Exhibit 1101. This is Appendix --

09:47:14 20 A. 1101?

09:47:15 21 Q. Sure. And I also can put it on the  
09:47:18 22 screen. This is Appendix B to your report.

09:47:21 23 A. Oh, that I have. I have Appendix B.  
09:47:25 24 Okay.

09:47:25 25 Q. Doctor, does Appendix B list all of

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09:47:41 1 the materials that you considered in developing  
09:47:43 2 your February 2020 report?

09:47:45 3 A. It should, beyond just general  
09:47:48 4 knowledge, yes.

09:47:51 5 Q. What do you mean by general  
09:47:53 6 knowledge?

09:47:54 7 A. In other words, I'm here as an  
09:47:56 8 expert witness. So, these are things to look at.  
09:47:58 9 But I also bring my own lens as an economist.

09:48:01 10 Q. Okay. It is a 23-page document. It  
09:48:12 11 has up to 1,500 items on it.

09:48:14 12 Did you review all of the items on  
09:48:16 13 this list?

09:48:18 14 A. I certainly worked with staff  
09:48:20 15 working under my direction to develop the record.  
09:48:24 16 I can't claim to have read every word in every  
09:48:26 17 item, no.

09:48:28 18 But, the instructions on how to do  
09:48:31 19 so both came from me, and our document and  
09:48:37 20 report.

09:48:44 21 Q. And this was staff working for you  
09:48:47 22 at Analysis Group; is that correct?

09:48:49 23 A. Yes, sir.

09:48:50 24 Q. How many people work on your team at  
09:48:52 25 Analysis Group?

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09:48:53 1 A. You know, I really don't know how  
09:48:56 2 many people altogether.

09:48:59 3 Q. Is it more than ten? Less than ten?

09:49:09 4 A. My answer is I don't know. I think  
09:49:11 5 a corollary to that I wouldn't know. But, I  
09:49:16 6 think it would be more than ten, but I really  
09:49:19 7 don't know.

09:49:19 8 Q. Who would know?

09:49:20 9 A. Analysis Group certainly would know.

09:49:26 10 Q. Did you have a project manager or a  
09:49:28 11 case manager that would know?

09:49:30 12 A. I do.

09:49:31 13 Q. Who was that?

09:49:33 14 A. Mr. Gold, like the metal. First  
09:49:43 15 name, Kevin.

09:49:48 16 Q. Do you know about how many hours you  
09:49:50 17 spent developing your report?

09:49:54 18 A. Going from memory, I think  
09:49:56 19 through -- you mean through the preparation of  
09:49:58 20 the report?

09:49:59 21 Q. Yes.

09:50:00 22 A. I would guess around 100, but I  
09:50:03 23 don't really recall the exact number.

09:50:06 24 Q. And then about how many hours did  
09:50:16 25 you spend preparing for the deposition?

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09:50:18 1 A. Well, if you mean by that, since the  
09:50:21 2 report, i.e. reading Dr. Metz's work and  
09:50:26 3 deposition, plus literal preparation, I would say  
09:50:28 4 another, going from memory, 70 or 80, maybe.

09:50:39 5 Q. I'm going to take you to the last  
09:50:42 6 page of Appendix B. In the middle of the page,  
09:50:53 7 there is an entry 1634, under the header Data.  
09:50:58 8 It says Bloomberg.

09:50:59 9 A. Yes.

09:50:59 10 Q. What kind of Bloomberg data is  
09:51:03 11 referred to in that entry?

09:51:05 12 A. I don't remember whether that was  
09:51:08 13 used for news information or data.

09:51:12 14 I know we got most of the data from  
09:51:21 15 Cap IQ. So, I'd have to go back and check. It  
09:51:22 16 is probably in the individual indices, but I  
09:51:25 17 don't recall.

09:51:28 18 Q. And I'm sorry. Where did you get  
09:51:46 19 most of your price information for security  
09:51:54 20 prices from?

09:51:54 21 A. They would be actually in the  
09:51:56 22 exhibits, but my memory is Capital IQ and  
09:51:59 23 possibly Bloomberg. We certainly used Factiva  
09:52:03 24 more for the raw data. We used Thompson ONE for  
09:52:07 25 some of the information, too.

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09:52:09 1 So, a variety of sources.

09:52:13 2 Q. The Bloomberg data that is cited  
09:52:17 3 here, was that produced with your report?

09:52:19 4 A. I don't know. I would assume so.

09:52:45 5 Q. Doctor, I want to ask you some  
09:52:47 6 questions about just some basic principles of  
09:52:50 7 conducting event studies.

09:53:10 8 Can an event study be used to tell  
09:53:14 9 you anything on a day on which there are notes?

09:53:17 10 A. I'm not sure what you mean by that.  
09:53:19 11 You could use an event study. It wouldn't be  
09:53:22 12 very meaningful, because normally an event study  
09:53:26 13 is used on days where you are testing.

09:53:33 14 You can run a regression, if that is  
09:53:36 15 your question. It wouldn't be very meaningful.

09:53:38 16 Q. It wouldn't tell you very much in  
09:53:40 17 the absence of something then?

09:53:41 18 A. If I'm understanding your question,  
09:53:44 19 no.

09:53:44 20 Q. Can you use an event study to  
09:53:49 21 evaluate the effect of an omission, information  
09:53:56 22 that is not disclosed?

09:54:00 23 MR. KIRSCH: Are you talking about  
09:54:01 24 the effect on a security price?

09:54:03 25 MR. BEDNAR: Yes.

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09:54:03 1 BY MR. BEDNAR:

09:54:05 2 Q. Can you use an event study to  
09:54:08 3 evaluate the effect on security price for  
09:54:11 4 specific information that is not disclosed, that  
09:54:14 5 is omitted.

09:54:15 6 A. Well, it would depend on fact and  
09:54:17 7 circumstances. If it is subsequently disclosed,  
09:54:23 8 you could, I suppose, look at a reaction if that  
09:54:26 9 is your question.

09:54:27 10 I'm not sure what you are asking.  
09:54:28 11 But, if that is your question, that is the answer.

09:54:42 12 Q. Before conducting an event study, is  
09:54:46 13 it important to determine whether the security  
09:54:48 14 that you are analyzing trades in an efficient  
09:54:51 15 market?

09:54:53 16 A. In general, yes. The whole  
09:54:56 17 theoretical background for an event study is that  
09:55:00 18 you are measuring the market's response to news.

09:55:04 19 For that to have economic meaning,  
09:55:06 20 you would need something like the semi-strong  
09:55:10 21 version of the efficient market hypothesis. So,  
09:55:15 22 yes, it is a joint test if that is your question.

09:55:23 23 Q. And what factors are important in  
09:55:25 24 determining whether the market for a particular  
09:55:29 25 security is sufficient?

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09:55:30 1 A. Well, courts have looked at a  
09:55:33 2 variety of factors. Economists generally look at  
09:55:36 3 similar ones, having to do with the liquidity of  
09:55:40 4 the market, which is stock trades, whether they  
09:55:43 5 are numbers of -- the numbers of analysts that  
09:55:46 6 follow the stock, volumes. You know, there are a  
09:55:50 7 variety of metrics that people use.

09:55:51 8 I think both Dr. Metz and I conclude  
09:55:53 9 the same thing that the market for the equity  
09:55:55 10 here is sufficient.

09:55:57 11 I added a few factors, I think  
09:55:59 12 beyond his, but they all point the same  
09:56:02 13 direction.

09:56:03 14 Q. Do you recall what factors you  
09:56:04 15 added?

09:56:05 16 A. I believe the short interest ratio.  
09:56:08 17 I don't remember. They are in the report. If it  
09:56:11 18 is important, we can go to that.

09:56:17 19 Q. You said liquidity is a factor in  
09:56:20 20 determining efficiency.

09:56:21 21 And in this context, what do you  
09:56:23 22 mean by liquidity?

09:56:25 23 A. Again, courts look at different  
09:56:30 24 things, bid-ask spreads, things like that. The  
09:56:32 25 transactions cost. There is some economic

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09:56:36 1 concept, as a practical matter. Things like  
09:56:38 2 bid-ask spreads.

09:56:40 3 Dr. Metz looked at most of those  
09:56:43 4 factors and concluded that the market was  
09:56:47 5 sufficient, and I don't disagree.

09:56:48 6 Q. So, can you explain in this context  
09:56:50 7 what is meant by bid-ask spreads?

09:56:53 8 A. In other words, transactions cost  
09:56:57 9 and trading stock. The higher transactions cost,  
09:57:00 10 you might imagine a market isn't as efficient.

09:57:05 11 The smaller transactions cost, then  
09:57:07 12 any new piece of information, that would profit  
09:57:11 13 arbitrage trader to engage.

09:57:13 14 That is why economists focus on  
09:57:15 15 transactions.

09:57:24 16 Q. And within this context, what do you  
09:57:27 17 mean by volume is a consideration of determining  
09:57:30 18 efficiency?

09:57:31 19 A. Courts often look at trading volume,  
09:57:35 20 daily volume, weekly volume. Most of this  
09:57:38 21 discussion of factors comes up in court cases,  
09:57:42 22 which is why I keep referring to that, often in  
09:57:45 23 Delaware. But, that is volume data are generally  
09:57:49 24 looked at. Dr. Metz did.

09:57:55 25 Q. And the consideration that you just

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09:58:02 1 outlined, is it important to consider all of  
09:58:05 2 those in determining market efficiency when  
09:58:07 3 conducting an event study?

09:58:10 4 A. Well, ultimately your conclusion is  
09:58:12 5 holistic. It is not like those factors have some  
09:58:15 6 sort of rank ordering. A researcher looks at  
09:58:18 7 them and makes a judgment. That is effectively  
09:58:21 8 what Dr. Metz did.

09:58:23 9 And, to be honest, I don't disagree  
09:58:25 10 with his conclusion that the market is efficient.

09:58:30 11 Q. And I think what I'm asking is, is  
09:58:33 12 it your view that it is important to make a  
09:58:35 13 determination of market efficiency when  
09:58:40 14 conducting an event study?

09:58:41 15 A. You asked that earlier. So, it is  
09:58:43 16 the same answer, yes.

09:58:45 17 Q. There were a few --

09:59:09 18 In terms of the mechanics of  
09:59:10 19 conducting the event studies, there are a few  
09:59:14 20 mechanical differences between the approach that  
09:59:17 21 Dr. Metz took and the approach that you took.  
09:59:19 22 And I wanted to ask you about those.

09:59:21 23 Dr. Metz excluded certain  
09:59:25 24 announcement dates for earnings and I think  
09:59:29 25 operations reviews.

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09:59:30 1 Do you recall that he did that in  
09:59:32 2 his study?

09:59:33 3 A. I do.

09:59:34 4 Q. And you included those dates,  
09:59:39 5 correct?

09:59:40 6 A. I did, but as a sensitivity I also  
09:59:42 7 did it Dr. Metz's way and I get the same answer,  
09:59:45 8 the same answer I get.

09:59:47 9 Q. Right. So, that choice in technique  
09:59:50 10 did not make a difference to the outcome of  
09:59:53 11 either report; is that correct?

09:59:54 12 A. That's correct.

09:59:54 13 Q. The outcome of either event study?

09:59:57 14 A. That is my finding, yes.

09:59:59 15 Q. And you expressed your -- or excuse  
09:59:59 16 me.

10:00:01 17 You measured returns in terms of  
10:00:04 18 logarithms, and he measures returns in terms of  
10:00:08 19 percent; is that right?

10:00:09 20 A. I believe that is true.

10:00:10 21 Q. And, is that again another  
10:00:13 22 difference in technique that does not affect the  
10:00:15 23 outcome of the particular event studies?

10:00:18 24 A. I don't recall that that affected  
10:00:20 25 the outcome of the event study.

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10:00:22 1                   There -- most of the factors are the  
10:00:26 2                   ones we talked about earlier.

10:00:27 3                   I don't recall that as making a  
10:00:29 4                   difference.

10:00:31 5                Q.       And when conducting an event study,  
10:00:33 6                I think that we have already sort of touched on  
10:00:36 7                this, but do you agree that it is important to  
10:00:37 8                use an industry index when conducting an event  
10:00:41 9                study?

10:00:43 10             A.       Well, it certainly really depends on  
10:00:46 11             the purpose. Here it would be, certainly.

10:00:50 12             Q.       Why do you say here it would be  
10:00:52 13             important to use an industry index?

10:00:56 14             A.       Well, because you are dealing with a  
10:00:58 15             company in a particular sector who may have  
10:01:02 16             correlated more with the sector than the overall  
10:01:06 17             economy.

10:01:07 18                   So, yes, it would be important to  
10:01:08 19             use an industry index, provided you use an  
10:01:11 20             industry index that has actual comparators.

10:01:16 21             Q.       Let me pull up another exhibit.  
10:01:33 22             This is 1116.

10:01:33 23                               (Exhibit Number 1116  
10:01:33 24                               marked for identification.)

10:02:10 25             BY MR. BEDNAR:

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10:02:10 1 Q. And, Doctor, this is Exhibit 5 from  
10:02:10 2 your report.

10:02:10 3 Oh, okay. It is up on the screen in  
10:02:10 4 front of you. It is a one-page, and I can  
10:02:10 5 enlarge the screen a little bit.

10:02:10 6 A. Okay.

10:02:10 7 Q. Can you see that all right?

10:02:10 8 A. Let me look at it on paper. It is a  
10:02:11 9 little hard. You can start talking. I will find  
10:02:11 10 it.

10:02:11 11 Q. So, the first question is easy, do  
10:02:11 12 you recognize this to be Exhibit 5 from your  
10:02:12 13 report?

10:02:13 14 A. Yes, that is correct.

10:02:17 15 Q. Did you create Exhibit 5?

10:02:18 16 A. I don't know what you mean by  
10:02:21 17 created. I caused it to be created.

10:02:24 18 Q. Okay. Did you review it before it  
10:02:26 19 was included in your report?

10:02:27 20 A. Yes.

10:02:27 21 Q. Okay. Did you review all of the  
10:02:29 22 exhibits in the appendices to your report?

10:02:35 23 A. Yes.

10:02:35 24 Q. Now, looking at this exhibit, in his  
10:02:41 25 two models, Dr. Metz obtains a 3 percent abnormal

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10:02:47 1 returns. And you get 1.25 percent in Column C  
10:02:53 2 and 1.66 percent in Column D. Is that correct?

10:02:55 3 A. You read the numbers correctly. If  
10:03:01 4 you are intending to attach an economic meaning,  
10:03:04 5 1.25 is comparable to 3.02, that I can't do.  
10:03:07 6 But, you read the numbers correctly.

10:03:12 7 Q. And I'm sorry. Can you explain the  
10:03:14 8 caveat that you just stated?

10:03:16 9 A. In other words, statistically -- I'm  
10:03:36 10 sorry.

10:03:36 11 My answer was, something -- in other  
10:03:41 12 words, the two numbers I -- 1.25 and 1.66, one  
10:03:46 13 can't reject the hypothesis there is 0.

10:03:49 14 That is the economic flavor. You  
10:03:52 15 certainly read the number, the point estimate,  
10:03:54 16 correct.

10:03:55 17 Q. And then, associated with the  
10:03:58 18 abnormal returns, you see key statistics for the  
10:04:05 19 abnormal returns, correct?

10:04:07 20 A. Yes, sir.

10:04:08 21 Q. Is there a standard in academic  
10:04:10 22 literature for indicating statistical  
10:04:14 23 significance of key statistics?

10:04:16 24 A. Generally, 95 --

10:04:17 25 MR. KIRSCH: Objection.

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10:04:18 1 THE WITNESS: I'm sorry.

10:04:20 2 MR. KIRSCH: You can answer. Go  
10:04:22 3 ahead.

10:04:25 4 THE WITNESS: Generally a 95 percent  
10:04:29 5 confidence level, which would be a key  
10:04:31 6 statistic around 1.96.

10:04:31 7 BY MR. BEDNAR:

10:04:33 8 Q. Are you familiar with the standard  
10:04:34 9 of applying one star to indicate statistical  
10:04:39 10 significance at the 10 percent level, two stars  
10:04:41 11 at the 5 percent level, and three stars at the  
10:04:44 12 1 percent level?

10:04:46 13 A. Sure. I have done it myself.

10:04:50 14 Q. Okay. And so in academic  
10:04:59 15 literature, if we were to follow that standard,  
10:05:01 16 there will be two stars on the key statistics in  
10:05:05 17 Dr. Metz's model, right?

10:05:07 18 A. That's correct.

10:05:07 19 Q. There would be no star for your  
10:05:09 20 model in Column C. Correct?

10:05:13 21 A. That's correct.

10:05:14 22 Q. And one star for your model in  
10:05:16 23 Column D. Right?

10:05:17 24 A. That is correct.

10:05:22 25 Q. And when you say that you have

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10:05:23 1 applied that convention from the academic  
10:05:26 2 literature yourself, you have done that in papers  
10:05:28 3 you have published, right?

10:05:29 4 A. Yes. Your earlier question was what  
10:05:31 5 is the threshold that economists generally use.

10:05:33 6 The answer to that is 95 percent.  
10:05:35 7 My experience in court as well.

10:05:36 8 But, everything is significant. The  
10:05:38 9 question is at what level.

10:05:38 10 (Exhibit Number 1127  
10:05:38 11 marked for identification.)

10:05:51 12 BY MR. BEDNAR:

10:05:51 13 Q. I am pulling up Exhibit 1127. This  
10:05:54 14 is a paper authored by you and Darius Palia.

10:06:01 15 A. Okay.

10:06:02 16 Q. The title of this is Benefits of  
10:06:05 17 Control, Managerial Ownership, and the Stock  
10:06:07 18 Returns of Acquiring Firms.

10:06:08 19 Do you see that in front of you?

10:06:10 20 A. I do.

10:06:11 21 Q. I'm going to take you to the 10th  
10:06:13 22 page of the PDF, which in the hard copy has  
10:06:18 23 Page Number 791. I'm going to have you look at  
10:06:23 24 Table 4.

10:06:27 25 A. Okay.

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10:06:27 1 Q. In that table, you see the key  
10:06:30 2 statistic of 1.68 has a star next to it.

10:06:34 3 A. Yes, I think I indicated I do this  
10:06:38 4 myself sometimes.

10:06:39 5 Q. Yes. And then -- I'm sorry. I took  
10:06:48 6 you right off the page.

10:06:49 7 And then the footnote at the bottom  
10:06:50 8 of the table says -- that is associated with that  
10:06:53 9 star, says statistically significant at the  
10:06:55 10 10 percent level. Just like we were discussing,  
10:06:58 11 right?

10:06:58 12 A. Yes, that's my convention is also a  
10:07:00 13 very common.

10:07:02 14 Q. Okay. And it is 1.68. Is the  
10:07:05 15 cutoff value 1.645?

10:07:08 16 A. Something like that, yes.

10:07:11 17 Q. So, it is barely statistically  
10:07:16 18 significant at the 10 percent level, right?

10:07:18 19 A. That is certainly true.

10:07:25 20 Q. If we go back one page, to the ninth  
10:07:27 21 page of the PDF, Page 790 of the exhibit. And we  
10:07:36 22 look at the last paragraph.

10:07:40 23 In the middle of the paragraph you  
10:07:43 24 and your coauthor wrote, "We find that acquiring  
10:07:47 25 firms with ownership levels greater than

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10:07:54 1 5 percent indeed perform diversifying  
10:07:59 2 acquisitions, and this difference is  
10:08:01 3 statistically significant at the 10 percent  
10:08:04 4 level."

10:08:04 5 A. I see that.

10:08:05 6 Q. And then you went on to say, "This  
10:08:07 7 result supports the diversification control  
10:08:11 8 hypothesis."

10:08:11 9 Did I read that correctly?

10:08:12 10 A. Sure, at that significance level,  
10:08:15 11 that would be true.

10:08:16 12 Q. And so in that academic paper you  
10:08:18 13 reached a conclusion that the effect that you  
10:08:22 14 were evaluating was supported by results at the  
10:08:26 15 10 percent statistical significance level.  
10:08:29 16 Correct?

10:08:29 17 A. My recollection is -- this paper is  
10:08:31 18 old.

10:08:31 19 But, my recollection is that its  
10:08:34 20 response to work by Mort, Schleifer and Vishny  
10:08:38 21 that use the more significance levels. I would  
10:08:41 22 have to go back and look. But, yes, that was the  
10:08:43 23 conclusion.

10:08:44 24 Q. Sure. And you certainly didn't say  
10:08:46 25 anything in this paper to reject the use of that

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10:08:49 1 significance level for evaluating your  
10:08:51 2 conclusion, did you?

10:08:51 3 A. I was very clear that it is  
10:08:56 4 significant at that level.

10:08:57 5 Q. And then if I take you back to  
10:09:01 6 Table 5 -- or excuse me, Exhibit 5 from your  
10:09:04 7 report.

10:09:05 8 Your key statistic is 1.85. Do you  
10:09:11 9 see that?

10:09:12 10 A. Yes.

10:09:12 11 Q. And that is larger than the 1.68 key  
10:09:17 12 statistic in your paper. Right?

10:09:18 13 A. Yes, I think we talked about that  
10:09:20 14 earlier, yes.

10:09:21 15 Q. Right. So, this is also  
10:09:25 16 statistically significant at the 10 percent  
10:09:27 17 level?

10:09:27 18 A. At the 10 percent level that is  
10:09:30 19 certainly true.

10:09:33 20 Q. And so following the logic from the  
10:09:36 21 paper that we just showed to you, that would mean  
10:09:42 22 that the results you found here with a key  
10:09:44 23 statistic of 1.85 support the hypothesis that REO  
10:09:48 24 stock return was unusually large. Correct?

10:09:51 25 A. I would say --

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10:09:52 1 MR. KIRSCH: Objection.

10:09:53 2 THE WITNESS: -- no, for a number of  
10:09:55 3 reasons. First, as I told you, this whole  
10:09:58 4 exercise fell from an economic perspective.

10:10:03 5 Second, there is another index with  
10:10:05 6 a different finding. And, third, 95 percent  
10:10:08 7 confidence is the confidence level Dr. Metz  
10:10:11 8 himself suggested, and courts generally use.

10:10:14 9 So, I wouldn't answer in the  
10:10:15 10 affirmative to your question, for those  
10:10:17 11 reasons.

10:10:17 12 BY MR. BEDNAR:

10:10:19 13 Q. So, are you saying that results that  
10:10:21 14 are statistically significant at the 10 percent  
10:10:23 15 level but not at the 5 percent level offer no  
10:10:27 16 evidence?

10:10:29 17 MR. KIRSCH: Objection. What do you  
10:10:31 18 mean by offer no evidence? Of what?

10:10:36 19 BY MR. BEDNAR:

10:10:36 20 Q. You can answer.

10:10:39 21 MR. KIRSCH: If you understand the  
10:10:41 22 question, Glenn, go ahead.

10:10:43 23 THE WITNESS: Well, it is pretty  
10:10:44 24 vague, but I will answer what I think it is.

10:10:46 25 If the question is, is evidence of

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10:10:47 1 statistical significance -- you know, things  
10:10:49 2 are statistically significant. The question  
10:10:51 3 is at what level and how strong would a  
10:10:54 4 conclusion be.

10:10:54 5 If I thought that this exhibit  
10:10:56 6 referred to an economically interesting  
10:10:58 7 exercise, and as you know I do not, I would  
10:11:02 8 look at this and say boy, this seems  
10:11:06 9 fragmented to me.

10:11:07 10 And then I would want to go through  
10:11:08 11 the individual indexes and ask myself which  
10:11:10 12 one I believe. That is the way I would do  
10:11:14 13 it.

10:11:15 14 BY MR. BEDNAR:

10:11:16 15 Q. And so you agree that the level of  
10:11:20 16 statistical significance goes to the strength of  
10:11:22 17 the conclusion that can be drawn, and not the  
10:11:26 18 fact that there is some information from the  
10:11:28 19 result. Correct?

10:11:30 20 MR. KIRSCH: Objection.

10:11:31 21 THE WITNESS: Well -- I'm sorry.

10:11:33 22 If I am understanding your question,  
10:11:38 23 there is always, quote, information. The  
10:11:38 24 question is how meaningful is it.

10:11:40 25 There is a statistical answer to

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10:11:42 1 that which is confidence levels. This whole  
10:11:44 2 exercise has no meaning from an economic  
10:11:46 3 perspective which surely is the larger  
10:11:49 4 question.

10:12:05 5 BY MR. BEDNAR:

10:12:05 6 Q. Doctor, with respect to your  
10:12:16 7 analysis of ADR prices on January 17th, 2013, for  
10:12:22 8 Rio Tinto, was it your conclusion that the  
10:12:26 9 impairment disclosure of that day did not have a  
10:12:29 10 measurable negative impact on Rio Tinto's ADR  
10:12:32 11 price?

10:12:34 12 A. Yes. I believe I used words to that  
10:12:37 13 effect, if not those very words.

10:12:39 14 Q. That is not the same thing as saying  
10:12:43 15 that it had no impact. Right?

10:12:50 16 A. Well, I'm not sure. I mean, as an  
10:12:53 17 economist, I don't know what you mean by an  
10:12:54 18 impact if it cannot be measured.

10:13:02 19 Q. And what I'm asking is because you  
10:13:04 20 were not able to measure a negative impact, is  
10:13:07 21 that the same thing as saying that you conclude  
10:13:09 22 that there was no impact at all?

10:13:13 23 A. Well, if I am understanding the  
10:13:15 24 question is you know what I did was not just that  
10:13:21 25 looked at the statistics, but also underlying

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10:13:23 1 information from news and analysts' reports.

10:13:27 2 And that enabled me to come to the  
10:13:29 3 conclusion that I did.

10:13:30 4 But, what you are describing doesn't  
10:13:32 5 sound like the scientific method to me. It  
10:13:35 6 sounds like an assertion you can't falsify. That  
10:13:41 7 is outside.

10:13:44 8 Q. And one of the things that you did  
10:13:46 9 as part of your equity event study was to review  
10:13:49 10 quite a large number of reports by the equity  
10:13:53 11 analysts, right?

10:13:55 12 A. Yes, sir.

10:13:56 13 Q. And, can you describe for the court  
10:14:00 14 what an equity analyst is?

10:14:04 15 A. Sure. An equity analyst would be  
10:14:07 16 somebody who works for one of the Wall Street  
10:14:10 17 firms to evaluate the business of, prospects of,  
10:14:17 18 earnings of, and recommendations about price  
10:14:21 19 targets for firms.

10:14:21 20 Analysts often specialize -- they  
10:14:27 21 needn't, but often specialize in industries and  
10:14:30 22 write about firms in those industries.

10:14:31 23 They spend their time getting  
10:14:34 24 information, which the Wall Street firms then use  
10:14:37 25 both on their own account and to provide to

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10:14:39 1 customers.

10:14:39 2 Q. And who were the customers of these  
10:14:45 3 firms?

10:14:46 4 A. Well, it could be a variety of  
10:14:47 5 things. It could be in Linnay work, it could be  
10:14:53 6 wealth management, an acquiring of the firm. And  
10:14:57 7 of course they go into analysts' information that  
10:15:00 8 are tracked in public data sources anyway.

10:15:10 9 Q. And so is a significant part of the  
10:15:13 10 purpose of analysts' reports is to make  
10:15:16 11 recommendations on stocks to buy or hold or sell,  
10:15:20 12 right?

10:15:20 13 A. Well, they certainly do make those  
10:15:24 14 recommendations. They also will provide  
10:15:30 15 quantitative information about what a price  
10:15:33 16 target is. Usually a number 12 to 18 months away  
10:15:36 17 from where we are standing from when we write the  
10:15:38 18 report, or evaluate the company's earnings and  
10:15:40 19 prospects.

10:15:41 20 They do all of that.

10:15:42 21 Q. Okay. So, in addition to  
10:15:43 22 potentially providing specific recommendations,  
10:15:45 23 they also provide information that investors can  
10:15:48 24 use. Right?

10:15:50 25 A. Yes, should they wish to, yes.

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10:15:52 1 Q. And, many analysts provide, as the  
10:15:55 2 name might suggest, analysis of what that  
10:15:58 3 information needs. Right?

10:15:59 4 A. Yes. Their analysis is the skill  
10:16:02 5 that they are tendering to the marketplace. What  
10:16:05 6 they learn and the skills they have to evaluate.

10:16:07 7 Q. And so --

10:16:10 8 MR. KIRSCH: Tom, will you give me  
10:16:12 9 ten seconds. We don't need to go off the  
10:16:14 10 record.

10:16:14 11 MR. BEDNAR: Okay.

10:16:26 12 MR. KIRSCH: Thank you.

10:16:27 13 MR. BEDNAR: Sure.

10:16:28 14 BY MR. BEDNAR:

10:16:29 15 Q. Doctor, one of the things that  
10:16:32 16 equity analysts may do is to render an opinion on  
10:16:37 17 where they think their opinion of a company's  
10:16:41 18 prospects may differ from the sentiment held by  
10:16:47 19 the market as a whole. Right?

10:16:48 20 A. Yes. But, just a way of restating  
10:16:52 21 the general recommendation.

10:17:02 22 Q. So, the opinion of one analyst may  
10:17:04 23 not be representative of what the market as a  
10:17:06 24 whole is thinking, right?

10:17:08 25 Or let me phrase that a different

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10:17:09 1 way. The opinion of one analyst may or may not  
10:17:12 2 be indicative of the opinion of other analysts,  
10:17:15 3 right?

10:17:16 4 A. If I can unpack that question, we  
10:17:20 5 know from academic perspective, Alon Brav and  
10:17:25 6 others, that analysts can sense price targets  
10:17:27 7 move the market.

10:17:28 8 But then your question is what about  
10:17:30 9 each individual analyst. Of course, each analyst  
10:17:34 10 isn't necessarily the same which is why studies  
10:17:37 11 often aggregate.

10:17:37 12 But of course each analyst is  
10:17:40 13 entitled to his or her own opinion.

10:17:42 14 Q. You referred to some academic  
10:17:44 15 research. Who were the authors of the research?

10:17:46 16 A. Alon Brav, and I believe the surname  
10:17:50 17 of the coauthor is Lehavy, L-E-H-A-V-Y.

10:18:04 18 Q. And, is there such a thing as --

10:18:11 19 Is it possible to ascertain  
10:18:15 20 consensus of what equity analysts' opinions are?

10:18:18 21 A. The answer to the question is yes.

10:18:20 22 Q. How do you do that?

10:18:22 23 A. Well, it is generally -- if you pick  
10:18:26 24 a metric, it is generally done as a mean or  
10:18:29 25 median of the analyst.

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10:18:31 1 Q. Mean or median of what?

10:18:34 2 A. It depends on the metric. If it is  
10:18:37 3 not a quantitative metric, it is hard to say  
10:18:40 4 there is a consensus around words.

10:18:42 5 But, things like an EPS target or  
10:18:45 6 price target, one can drive a consensus.

10:18:47 7 Q. Okay.

10:18:48 8 A. EPS meaning earnings per share.

10:18:53 9 Q. Sure, sure. And so you often see,  
10:18:55 10 you know, these information service providers  
10:18:58 11 that you have referred to publishing sort of a  
10:19:01 12 consensus earnings estimate of all of the  
10:19:03 13 analysts that are putting out their -- right?

10:19:08 14 A. Yes. And they often will publish  
10:19:11 15 the information, too, but they certainly give you  
10:19:15 16 the consensus.

10:19:16 17 Q. Is there anybody that publish the  
10:19:18 18 consensus of qualitative , things that aren't  
10:19:22 19 quantifiable?

10:19:23 20 A. I'm sure there are. I'm not really  
10:19:26 21 sure what the word consensus means in that  
10:19:29 22 context, but I'm sure there must be services that  
10:19:31 23 attempt to do that.

10:19:32 24 And of course, reporters do that.  
10:19:34 25 It means to write a story, you are looking at a

**CONFIDENTIAL**

10:19:36 1 variety of sources, which is harder to do than a  
10:19:39 2 quantitative metric.

10:19:40 3 Q. Sure. I would like to talk to you  
10:19:49 4 for a few minutes about Riversdale.

10:19:53 5 So, in the work that you did in  
10:19:56 6 developing your report, did you develop a sense  
10:19:59 7 of why Rio Tinto acquired Riversdale in 2011?

10:20:04 8 MR. KIRSCH: Objection, vague.

10:20:07 9 THE WITNESS: My understanding,  
10:20:08 10 which of course is reported in the report,  
10:20:12 11 that it was a couple of things. One, a key  
10:20:16 12 diversifying acquisition. And the other was  
10:20:20 13 the potential prospects that the company  
10:20:23 14 viewed for this particular coal project.

10:20:29 15 BY MR. BEDNAR:

10:20:29 16 Q. Let's take those one at a time.

10:20:31 17 You said that you referred to it as  
10:20:33 18 a key diversifying acquisition.

10:20:35 19 What do you mean by that?

10:20:36 20 A. I think of course it is the  
10:20:38 21 management, I think that is what they said. I  
10:20:40 22 think that was their view of wanting to increase  
10:20:44 23 their presence there.

10:20:44 24 In Rio Tinto, as a whole at that  
10:20:46 25 time and probably still, iron ore is almost all

**CONFIDENTIAL**

10:20:51 1 of the earth. It is 85 percent, and still a big  
10:20:55 2 chunk of the revenue.

10:20:56 3 And I think the attempt was to offer  
10:20:58 4 some diversification in what they call their  
10:21:01 5 energy unit, RTE, which would have included  
10:21:04 6 projects like that.

10:21:07 7 Q. And then you also referred to the  
10:21:09 8 potential prospects that the company used for  
10:21:11 9 this particular coal project.

10:21:13 10 What did you mean by that?

10:21:14 11 A. Well, the, I believe the information  
10:21:17 12 I cite was just a view at the time that this was  
10:21:21 13 a promising project for coal.

10:21:35 14 Q. And it was the project that had yet  
10:21:38 15 to be developed. Right?

10:21:40 16 A. Yes. In several layers. There were  
10:21:44 17 questions about developing the mines themselves,  
10:21:48 18 but also issues about infrastructure that would  
10:21:51 19 support the movement of coal and equipment.

10:21:56 20 Q. And those things have to come  
10:21:58 21 together to unlock the real value of that  
10:22:01 22 project. Right?

10:22:03 23 A. That is true. Investments can --

10:22:05 24 MR. KIRSCH: Objection.

10:22:06 25 THE WITNESS: Sorry.

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10:22:07 1 MR. KIRSCH: No, please.

10:22:09 2 THE WITNESS: Investments in things  
10:22:11 3 like energy, minerals are very long lived  
10:22:16 4 project. And so it is often understood that  
10:22:19 5 there is a great deal of capital expenditure.  
10:22:23 6 A lot of assumptions about infrastructure,  
10:22:25 7 about future commodity prices, about future  
10:22:29 8 levels of GDP and so on.

10:22:30 9 BY MR. BEDNAR:

10:22:31 10 Q. In your research for the report, did  
10:22:33 11 you come across information as to whether  
10:22:35 12 Riversdale had the resources to develop that  
10:22:38 13 project to its full scale?

10:22:43 14 A. I'm sorry. I don't understand the  
10:22:45 15 question. So, was the question that Riversdale,  
10:22:47 16 pre-Rio Tinto, had the resources to do what? I  
10:22:51 17 mean, I -- I can --

10:22:53 18 Q. I think that that is a fair question  
10:22:55 19 to my question.

10:22:56 20 Did you come across information as  
10:22:58 21 to whether Riversdale, before it was acquired by  
10:23:00 22 Rio Tinto, had the financial resources to develop  
10:23:06 23 those projects?

10:23:10 24 A. It is a hard question to answer  
10:23:12 25 because I don't know what you mean develop those

**CONFIDENTIAL**

10:23:14 1 projects.

10:23:14 2 To develop them at the scale Rio  
10:23:16 3 Tinto had in mind, I'm going really from memory.  
10:23:20 4 Because, it is not that much of my report on  
10:23:23 5 this.

10:23:23 6 I would doubt that it would have.  
10:23:25 7 But they may have been able to develop it for  
10:23:27 8 some other purpose.

10:23:28 9 Q. Okay. And, did you come across any  
10:23:31 10 information as to whether prior to the Rio Tinto  
10:23:35 11 acquisition, Riversdale had experience developing  
10:23:39 12 the kind of large-scale infrastructure to develop  
10:23:42 13 those projects on the scale that Rio Tinto  
10:23:44 14 envisioned?

10:23:46 15 A. I don't recall that, sorry.

10:23:50 16 Q. And in any event, Riversdale, as of  
10:23:58 17 the time of the acquisition, had not yet done  
10:24:01 18 that infrastructure development. Correct?

10:24:04 19 A. I'm not quite sure what you mean by  
10:24:06 20 infrastructure.

10:24:07 21 Some of that infrastructure is  
10:24:09 22 probably public sector infrastructure, not just  
10:24:12 23 the company. But the infrastructure had not yet  
10:24:14 24 been developed, if that is your question.

10:24:16 25 Q. Yes. And then going back to one of

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10:24:18 1 the other points that you raised had to do with  
10:24:22 2 diversification.

10:24:22 3 And so I think you mentioned that  
10:24:25 4 both in 2011 and today, iron ore makes up the  
10:24:31 5 overwhelming majority of earnings for Rio Tinto,  
10:24:34 6 right?

10:24:34 7 A. That is my understanding, yes.

10:24:36 8 Q. And, so, you saw information in  
10:24:39 9 developing your report that Rio Tinto had an  
10:24:42 10 interest in diversifying into other commodities,  
10:24:45 11 right, in 2011?

10:24:47 12 A. I believe so. I believe that  
10:24:50 13 management expressed that view, yes.

10:24:52 14 Q. And, did you see anything indicating  
10:24:59 15 that Rio Tinto was primarily focused on iron ore  
10:25:04 16 operation in Australia, right?

10:25:08 17 A. You mean as a component of its  
10:25:10 18 revenue and earnings, is that the question?

10:25:12 19 Q. That's right.

10:25:12 20 A. The focus, yes.

10:25:14 21 Q. And so, the Riversdale acquisition  
10:25:17 22 offered an opportunity to diversify somewhat out  
10:25:22 23 of Australia, right?

10:25:24 24 A. It would because, yes, the project  
10:25:27 25 is in Africa.

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10:25:28 1 Q. And, in fact, up until 2011, most of  
10:25:32 2 Rio Tinto's projects had been in so-called  
10:25:35 3 developing countries in the OECD, right?

10:25:40 4 I'm sorry. Did I say developing  
10:25:43 5 countries? I certainly meant developed countries  
10:25:46 6 in the OECD.

10:25:47 7 A. I was about to answer the other.  
10:25:50 8 But, yes, that is true. That is my  
10:25:52 9 understanding.

10:25:52 10 Q. And, so Mozambique also represented  
10:25:56 11 an ability to diversify not just out of  
10:25:59 12 Australia, but outside of the developed  
10:26:02 13 economies, right?

10:26:05 14 A. That statement is true. The matter  
10:26:08 15 of geography, if that is what you are asking.

10:26:11 16 Q. Yes. And, in 2011, with so much of  
10:26:25 17 its operation concentrated in Australia, Rio  
10:26:28 18 Tinto was subjected to the Australian tax regime  
10:26:36 19 for mineral properties, right?

10:26:38 20 MR. KIRSCH: Objection.

10:26:39 21 THE WITNESS: Well, it will be the  
10:26:42 22 subject of Australian regulation tax, any  
10:26:44 23 legal requirements for a corporation.

10:26:46 24 BY MR. BEDNAR:

10:26:46 25 Q. Okay. And so, again, diversifying

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10:26:49 1 into other geographies, particularly lower tax  
10:26:53 2 jurisdictions, may have provided some benefits  
10:26:55 3 for Rio Tinto, correct?

10:26:57 4 A. I'm sorry. By benefits, do you mean  
10:26:59 5 tax benefits? Because that is the question you  
10:27:01 6 just asked.

10:27:01 7 Or do you mean something else?

10:27:03 8 Q. That's correct, tax benefits.

10:27:05 9 A. I don't know. It has been a long  
10:27:08 10 time since I have looked at the Australian tax  
10:27:12 11 system. I am not sure.

10:27:15 12 For that to have been true, you must  
10:27:17 13 be making some kind of argument about territorial  
10:27:20 14 taxations.

10:27:20 15 I'm not sure. I would have to go  
10:27:22 16 back and look at the Australian system. I don't  
10:27:25 17 know enough to answer the question.

10:27:26 18 Q. When you were preparing your report,  
10:27:28 19 did you consider at all the mineral resources  
10:27:32 20 rent tax that was placed in Australia as of  
10:27:35 21 mid-2011?

10:27:38 22 A. I don't recall one way or the other.  
10:27:40 23 I'm not quite sure why it would. But, I don't  
10:27:42 24 recall one way or the other.

10:27:43 25 Q. Okay. And do you recall considering

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10:27:46 1 any market sentiments with whether Rio Tinto  
10:27:52 2 should decrease exposure to that Australian tax  
10:27:57 3 regime?

10:27:58 4 A. I'm sorry. Did you say whether it  
10:28:00 5 should increase its exposure to that tax regime?

10:28:04 6 Q. Decrease.

10:28:04 7 A. Decrease. I don't recall. I don't  
10:28:08 8 recall the tax discussion. It may be in some of  
10:28:10 9 what I looked at, but I just don't recall.

10:28:12 10 Q. Riversdale was Rio Tinto's largest  
10:28:18 11 acquisition in 2011, right?

10:28:22 12 A. In that year, yes. I think it was  
10:28:24 13 about a fifth of their spending that year. Yes.

10:28:31 14 Q. And Riversdale was Rio Tinto's  
10:28:32 15 largest acquisition since the 2007 Alcan  
10:28:37 16 acquisition, right?

10:28:38 17 A. That is my understanding, yes.

10:28:39 18 Q. And in developing your report, did  
10:28:41 19 you come across any coverage of market sentiment  
10:28:44 20 related to that Alcan acquisition?

10:28:49 21 A. At the time the Alcan acquisition  
10:28:51 22 was actually made? Is that your question?

10:28:53 23 Q. That is a good question. As of the  
10:28:54 24 time of the Riversdale acquisition, did you come  
10:28:57 25 across any coverage that would give you a sense

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10:28:59 1 of market sentiment with respect to the Alcan  
10:29:01 2 acquisition?

10:29:02 3 MR. KIRSCH: Objection.

10:29:03 4 THE WITNESS: Sorry. Yes. Some of  
10:29:07 5 the -- sorry. Did you want --

10:29:09 6 MR. KIRSCH: No, you can answer.

10:29:10 7 And, Tom, I will just note we have  
10:29:12 8 been going about an hour. Why don't we take  
10:29:14 9 a break after this.

10:29:16 10 Glenn, go ahead and answer the  
10:29:17 11 question.

10:29:17 12 THE WITNESS: I'm sorry. Could you  
10:29:20 13 repeat the question? Sorry. Mark distracted  
10:29:24 14 me. My apologies.

10:29:24 15 BY MR. BEDNAR:

10:29:24 16 Q. Sure. I had clarified that as of  
10:29:28 17 the time of the Riversdale acquisition, did you  
10:29:32 18 come across any coverage that would give you a  
10:29:35 19 sense of market sentiment with respect to that  
10:29:39 20 Alcan acquisition?

10:29:40 21 A. Yes. If your question is at the --  
10:29:44 22 for contemporary time, not the original time,  
10:29:46 23 that would have been in the news, and, excuse me,  
10:29:48 24 analysts' commentary that I surveyed for the  
10:29:51 25 period.

**CONFIDENTIAL**

10:29:51 1 Q. And what was that sentiment if you  
10:29:54 2 know?

10:29:56 3 A. My recollection is skepticism about  
10:30:00 4 the asset, but again this wasn't something that I  
10:30:02 5 was asked to study.

10:30:05 6 Q. Okay. Now were you aware --

10:30:07 7 MR. KIRSCH: Can we take that break,  
10:30:09 8 Tom?

10:30:09 9 THE WITNESS: We can finish -- I'm  
10:30:11 10 happy, if this is a line of questioning, I'm  
10:30:13 11 happy to finish it.

10:30:14 12 MR. BEDNAR: It is fine with me to  
10:30:15 13 take a short break and we can just pick up.  
10:30:17 14 It is easy enough. We can go off the record.

10:30:19 15 THE VIDEOGRAPHER: We are going off  
10:30:22 16 the record. The time is 10:30 eastern.

10:30:26 17 (Recess taken -- 10:30 a.m.)

10:43:51 18 (After recess -- 10:44 a.m.)

10:43:51 19 THE VIDEOGRAPHER: We are going back  
10:44:21 20 on the record. The time is 10:44 eastern.

10:44:27 21 BY MR. BEDNAR:

10:44:30 22 Q. Dr. Hubbard, we were -- I asked you  
10:44:32 23 a couple of questions about the Alcan  
10:44:35 24 acquisition. I have just a couple more. I  
10:44:37 25 understand that you did not cover the

## CONFIDENTIAL

10:44:41 1 acquisition.

10:44:41 2 But in the work you did for your  
10:44:43 3 report, were you aware that as of 2011, when  
10:44:47 4 Riversdale was acquired, there had been several  
10:44:50 5 impairments to the value of Alcan?

10:44:55 6 A. I believe that is true. Again, it  
10:44:58 7 is not the subject of my report. So, I believe  
10:45:02 8 that is true, but I'm of course not a fact  
10:45:04 9 witness. That is not the subject I was tasked to  
10:45:07 10 consider.

10:45:08 11 Q. Doctor, if I could again show you  
10:45:49 12 Exhibit 1101, which is the materials considered.

10:45:54 13 I can put it up on the screen for  
10:45:56 14 you.

10:46:02 15 A. Okay.

10:46:11 16 Q. On the third page of the appendix,  
10:46:14 17 and then carrying on for several pages  
10:46:16 18 thereafter, are news reports from Factiva.

10:46:20 19 A. Yes.

10:46:20 20 Q. And the first items, 188 through  
10:46:36 21 194, are dated March 28, 2011, correct?

10:46:40 22 A. That is true, yes.

10:46:42 23 Q. The remaining items, if you scroll  
10:46:45 24 down from Page 3 onward -- the remaining medias  
10:46:50 25 goes from March 28th forward. Is that correct?

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10:46:54 1 A. Yes, sir.

10:46:56 2 Q. Did you analyze news before  
10:47:03 3 March 28th other than the few items that are  
10:47:06 4 listed on that appendix?

10:47:08 5 A. If the those are the items I listed,  
10:47:11 6 those would have been the ones that met the  
10:47:14 7 keyword search.

10:47:16 8 So, I believe I am faithful in  
10:47:20 9 putting in all of the articles that I reviewed.

10:47:22 10 Q. Do you have any opinions about  
10:47:27 11 events related to Rio Tinto's Riversdale bid  
10:47:31 12 prior to March 28th, or 29th, 2011?

10:47:36 13 A. If I am understanding your question,  
10:47:41 14 I think I made the point earlier, nothing in this  
10:47:43 15 case has anything to do with that, from an  
10:47:45 16 economic perspective.

10:47:46 17 So, no, I wouldn't bother to have an  
10:47:51 18 opinion.

10:47:57 19 Q. And other than maybe captured by the  
10:48:01 20 few articles that you cited that predate  
10:48:05 21 March 28th, did you do anything to analyze Rio  
10:48:07 22 Tinto's bid for Riversdale prior to that date?

10:48:11 23 A. I'm not even sure what that question  
10:48:14 24 means. It might mean a price. It might mean a  
10:48:18 25 process. It might mean lots of things. As I

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10:48:18 1 told you, it is not an economically interesting  
10:48:18 2 question. I didn't do it.

10:48:22 3 But, for the record, I want to be  
10:48:23 4 clear, I don't know what you are asking.

10:48:26 5 Q. I am simply asking in forming your  
10:48:29 6 rebuttal to Dr. Metz, in which you evaluate Rio  
10:48:33 7 Tinto's bid for Riversdale, whether or not you  
10:48:36 8 think that is an important question, do you agree  
10:48:38 9 that you provide an analysis of that question in  
10:48:41 10 your rebuttal, to respond to Dr. Metz. Right?

10:48:44 11 MR. KIRSCH: Objection. What  
10:48:45 12 question?

10:48:48 13 THE WITNESS: You keep saying bid.  
10:48:49 14 I don't know if you are referring to dollars,  
10:48:51 15 if you are referring to a process.

10:48:53 16 Again, I don't think this is  
10:48:55 17 interesting, but you tell me what you want  
10:48:57 18 and I will answer.

10:48:59 19 BY MR. BEDNAR:

10:48:59 20 Q. Okay. Sure. You provided analysis  
10:49:01 21 in response to Dr. Metz of Rio Tinto's  
10:49:04 22 acquisition of Riversdale, right?

10:49:08 23 A. That is not quite the way I would  
10:49:11 24 put it. But, I certainly evaluated Dr. Metz's  
10:49:15 25 statistical work. I don't think any of that has

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10:49:18 1 any economic content.

10:49:20 2 Now you are asking me some factual  
10:49:22 3 questions about a bid, but you are not willing to  
10:49:24 4 tell me what you mean by that. Say a number, a  
10:49:26 5 process.

10:49:27 6 Q. Sure. Doctor, you provided  
10:49:29 7 information about the state of Rio Tinto's offer  
10:49:32 8 as of March 29th, 2011. Correct?

10:49:36 9 A. Yes.

10:49:37 10 Q. And, on that day, Rio Tinto removed  
10:49:42 11 the minimum acceptance position, correct?

10:49:49 12 A. Yes.

10:49:49 13 Q. It was from lowered from 50 percent  
10:49:56 14 to 47 percent, right?

10:49:58 15 A. That is my understanding.

10:49:59 16 Q. And so, that is an aspect of Rio  
10:50:01 17 Tinto's offer you did analyze in preparing your  
10:50:10 18 expert report. Right?

10:50:13 19 A. Yes, I believe I commented on  
10:50:15 20 Dr. Metz's backup materials and his looking at  
10:50:19 21 days, I believe including that one, and their  
10:50:21 22 lack of statistical significance, yes.

10:50:23 23 Q. And you did not comment on any  
10:50:26 24 aspects of Rio Tinto's offer prior to March 28th.  
10:50:35 25 Correct?

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10:50:35 1 A. If I am understanding your question  
10:50:37 2 other than that there is an offer, I'm not sure  
10:50:39 3 why I would. I have already told you it is not  
10:50:42 4 an economic question before the court.

10:50:45 5 And, second, what Dr. Metz had was  
10:50:48 6 an argument about control, which is an argument  
10:50:51 7 about those last several days. That is where he  
10:50:53 8 and I have a disagreement.

10:50:54 9 I hope that is helpful but I'm not  
10:50:57 10 sure exactly what you are asking.

10:50:58 11 Q. Sure. So, is it your conclusion  
10:51:00 12 that events prior to March 28th and March 29th of  
10:51:02 13 2011 are not relevant to the question of control?

10:51:07 14 A. Now you are asking a different  
10:51:10 15 question.

10:51:10 16 What I said earlier was they are not  
10:51:12 17 relevant to the question before the court, from  
10:51:15 18 an economic perspective, which is ultimately  
10:51:18 19 about the impairments. It is not relevant at all  
10:51:20 20 to that.

10:51:20 21 On control, I would also disagree  
10:51:23 22 because the question is where are you getting  
10:51:28 23 news about control. Dr. Metz talks about several  
10:51:31 24 events in that late March, early April period,  
10:51:34 25 but his own backup materials find no

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10:51:37 1 statistically significant event.

10:51:40 2 Q. Did you analyze any event with  
10:51:46 3 respect to the Riversdale acquisition prior to  
10:51:49 4 March 28th of 2011?

10:51:52 5 A. I don't even know what that means.  
10:51:54 6 I reported the news events. I wouldn't have  
10:51:58 7 analyzed it.

10:51:59 8 All I'm doing here is responding to  
10:52:02 9 Dr. Metz. I don't think this is a live question  
10:52:08 10 at least from an economic perspective.

10:52:10 11 And if it is your view that control  
10:52:12 12 was established earlier, then I think your  
10:52:18 13 position's intention would rest.

10:52:22 14 Q. Do you have an opinion as to when  
10:52:24 15 control was established?

10:52:28 16 A. I think that is -- from an economic  
10:52:30 17 perspective, that is a hard question to -- the  
10:52:34 18 statistics, you are trying to get at when the  
10:52:36 19 market believed that control would occur.

10:52:39 20 So, it is not the mere fact. The  
10:52:41 21 price reaction would be to the belief that it  
10:52:46 22 would happen. That is really the economic test.

10:52:48 23 Dr. Metz asserts that on April 8th  
10:52:51 24 that was the news that met the market. You know,  
10:52:54 25 I have already said it is not an interesting

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10:52:56 1 question. It is the wrong statistics.

10:52:58 2 And, by the way, his point estimate  
10:53:00 3 would lead to a nonsensical application.

10:53:03 4 Q. So, do you have an opinion as to  
10:53:05 5 when the market concluded that Rio Tinto would  
10:53:07 6 gain control?

10:53:09 7 A. I believe what I say in the report  
10:53:11 8 is it became evident over time from analysts.  
10:53:15 9 And those were the gradual understanding that  
10:53:17 10 that is the case. As Dr. Metz notes in his own  
10:53:20 11 backup, he doesn't find any statistically  
10:53:22 12 significant effects on those run-up days prior to  
10:53:26 13 April 8th.

10:53:31 14 Q. And you are saying that the market  
10:53:42 15 developed an understanding over time when Rio  
10:53:47 16 Tinto would gain control?

10:53:49 17 A. It would be an expectation, I  
10:53:52 18 suppose is the better way to put it.

10:53:53 19 And I'm not sure why one would care  
10:54:00 20 about the answer to that question, but -- in this  
10:54:02 21 context. But, that is the view that I think  
10:54:04 22 analysts express, and that Dr. Metz's statistics  
10:54:07 23 seem to imply.

10:54:09 24 Q. Over what period of time did the  
10:54:11 25 market come to that understanding or expectation

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10:54:16 1 that Rio Tinto gained control?

10:54:21 2 A. Well, the news reports and analyst  
10:54:24 3 reports that I suggest have increasing commentary  
10:54:26 4 on that in late March and early April.

10:54:30 5 Again, I'm not sure why this is  
10:54:37 6 important.

10:54:38 7 What Dr. Metz measures, he calls  
10:54:41 8 control, but I'm not even sure what it is or why  
10:54:44 9 it would matter.

10:54:54 10 Q. Was March 29, 2011, significant in  
10:55:01 11 your analysis of the news related to Rio Tinto's  
10:55:04 12 attempt to acquire Riversdale?

10:55:07 13 MR. KIRSCH: Objection, vague.

10:55:09 14 THE WITNESS: Yeah, I'm not sure  
10:55:10 15 what you mean by significant. Again, this  
10:55:14 16 prior exercise is not worth doing. That is  
10:55:16 17 my opinion.

10:55:17 18 I believe on March 29th, the bid was  
10:55:19 19 made unconditional. Is that what you are  
10:55:21 20 referring to? So, that is certainly a step  
10:55:23 21 along the way, if that is your question and  
10:55:29 22 actual answer.

10:55:30 23 BY MR. BEDNAR:

10:55:31 24 Q. Yes. Was there any other change  
10:55:33 25 made to Rio Tinto's offer on March 29th in making

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10:55:37 1 the bid unconditional?

10:55:39 2 A. I don't remember. At some point  
10:55:40 3 they increased the price modestly, but I don't  
10:55:43 4 really remember which day that was.

10:55:45 5 Q. That could have been before  
10:55:46 6 March 29th?

10:55:47 7 A. I don't really recall.

10:55:50 8 Q. And on March 29th, did Rio Tinto put  
10:56:00 9 the deadline for its offer at April 6th; is that  
10:56:04 10 correct?

10:56:06 11 A. That is my recollection, yes.

10:56:11 12 Q. And then that deadline was later  
10:56:14 13 extended?

10:56:16 14 A. That is correct, too.

10:56:19 15 Q. Did you analyze Rio Tinto's ADR  
10:56:22 16 price on March 29th, 2011?

10:56:28 17 A. It is not in my report. If it was  
10:56:31 18 one of the dates that was in Dr. Metz's backup,  
10:56:34 19 then I would have reviewed his backup and  
10:56:37 20 commented on it.

10:56:38 21 But, I don't remember if that is one  
10:56:39 22 of his dates.

10:56:42 23 If it is, I did look at it because  
10:56:44 24 he looked at it, and it was statistically  
10:56:47 25 significant. I just don't remember if that is

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10:56:50 1 one of the dates. It is in the report.

10:56:52 2 Q. Did you test March 29th, 2011, using  
10:56:56 3 either of your administrative dates?

10:57:04 4 MR. KIRSCH: Objection.

10:57:06 5 THE WITNESS: If I am understanding  
10:57:07 6 your question --

10:57:08 7 Sorry.

10:57:08 8 MR. KIRSCH: I was just going to  
10:57:08 9 say, Tom, when you say testing the date, can  
10:57:10 10 you tell us what you mean?

10:57:12 11 MR. BEDNAR: Sure.

10:57:12 12 BY MR. BEDNAR:

10:57:12 13 Q. Did you test returns on Rio Tinto's  
10:57:18 14 ADR project on March 29th, 2011, using either the  
10:57:24 15 HSBC Mining Index or the eight company competitor  
10:57:29 16 index?

10:57:29 17 THE WITNESS: I don't recall, but I  
10:57:30 18 doubt it, because again I think the whole  
10:57:32 19 question is sterile. The only point of my  
10:57:32 20 comment was that Dr. Metz heat up an  
10:57:37 21 argument. So, let's use his own backup and  
10:57:40 22 see what he found. So, no, I don't think any  
10:57:42 23 index.

10:57:42 24 BY MR. BEDNAR:

10:57:43 25 Q. So, would you be surprised to learn

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10:57:44 1 that in the backup material produced with your  
10:57:47 2 report, that you or someone on your team did test  
10:57:52 3 the ADR returns on March 29th, 2011, using the  
10:57:58 4 HSBC Mining Index?

10:58:01 5 A. As I say, I don't recall one way or  
10:58:02 6 the other. I don't think it is a very  
10:58:03 7 interesting thing to do, but if it is in the  
10:58:05 8 production, have at it.

10:58:07 9 Q. So, if that were done, was that  
10:58:10 10 under your direction or did someone do that on  
10:58:12 11 their own?

10:58:13 12 A. I probably asked to produce as  
10:58:17 13 ultimate backup for you as possible, even though  
10:58:19 14 I don't think any of this is interesting from a  
10:58:21 15 matter of economics.

10:58:22 16 I was just trying to be a  
10:58:24 17 counterpoint to Dr. Metz.

10:58:26 18 Q. Right. I'm not asking about why it  
10:58:28 19 was produced. I'm asking about why it was done.

10:58:30 20 Did you direct someone to test ADR  
10:58:35 21 returns on March 21, 2011, using the HSBC Mining  
10:58:39 22 Index?

10:58:39 23 A. I don't recall seeing something like  
10:58:41 24 that. It may have been part of the general  
10:58:42 25 instruction and that is what is produced.

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10:58:43 1 Again, I don't think it is an answer  
10:58:45 2 to any question that I care.

10:58:50 3 Q. And so you wouldn't care that the  
10:58:52 4 results from that analysis that was produced in  
10:58:56 5 your backup materials was a key statistic of 1.91  
10:59:00 6 with a T value of 5.6 percent?

10:59:06 7 A. No.

10:59:06 8 MR. KIRSCH: Objection.

10:59:07 9 THE WITNESS: No. Again, it is not  
10:59:08 10 an answer to any question I'm aware of in  
10:59:11 11 Econ 101. It doesn't sound like it is  
10:59:14 12 statistically significant in any event.

10:59:16 13 But it is not an interesting  
10:59:18 14 exercise to do.

10:59:19 15 BY MR. BEDNAR:

10:59:19 16 Q. Well, that would be statistically  
10:59:21 17 significant if it was, correct?

10:59:24 18 A. There is always a level at which  
10:59:26 19 something is significant. I believe that  
10:59:28 20 Dr. Metz suggests a 95 percent threshold.

10:59:31 21 But, statistics aren't the key  
10:59:33 22 answer here. The key answer is this is not worth  
10:59:36 23 doing.

10:59:37 24 Q. But yes or no, the key statistic of  
10:59:40 25 1.91 which is a P value of 5.6 percent would be

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10:59:44 1 statistically significant at the 10 percent  
10:59:46 2 level?

10:59:46 3 A. Yes, it is just not the answer to  
10:59:48 4 any economic question, but a statistic question.

10:59:52 5 Q. And a key statistic of 1.91 with a  
10:59:55 6 key value of 5.6 percent, that would be close to  
10:59:59 7 a 2 statistical significance at the 5 percent  
11:00:02 8 level, correct?

11:00:03 9 A. Close is in the mind of the  
11:00:06 10 beholder. It is certainly, you know, within a  
11:00:08 11 few percentage points. Again, I'm not sure why  
11:00:11 12 you would care one way or the other.

11:00:13 13 Q. And I -- so, do you know that  
11:00:21 14 regression analysis in your backup materials and  
11:00:25 15 you used it to index.

11:00:27 16 Do you know one way or the other  
11:00:29 17 whether that was wrong to be including or  
11:00:31 18 excluding the running announcement date?

11:00:34 19 MR. KIRSCH: Objection. Vague.

11:00:35 20 THE WITNESS: If I am understanding  
11:00:38 21 your question, I have to go back and look.  
11:00:40 22 But, I don't think it excluded the earnings  
11:00:45 23 announcement dates.

11:00:47 24 But if this is -- again, I didn't  
11:00:49 25 spend much time on this because I don't think

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11:00:52 1 it is important. But, I can go back and look  
11:00:53 2 if that is important to you.

11:00:54 3 BY MR. BEDNAR:

11:00:55 4 Q. No, I'm specifically referring --  
11:00:56 5 and I should have clarified. I just said a  
11:00:58 6 regression analysis.

11:00:59 7 I'm talking about the regression  
11:01:01 8 analysis of March 29, 2011 in your appendix, that  
11:01:03 9 was produced in the backup.

11:01:04 10 Are you in a position to know  
11:01:06 11 whether or not earnings announcement dates were  
11:01:08 12 excluded or not?

11:01:09 13 A. I don't believe we did.

11:01:11 14 But, again, if it is important, we  
11:01:13 15 could go back and check.

11:01:15 16 Q. And then, would it surprise you to  
11:01:32 17 know that if that regression that someone in your  
11:01:33 18 team ran from March 29th -- before  
11:01:37 19 March 29, 2011, ADR price, using the HSBC Mining  
11:01:41 20 Index, if earnings announcement dates were  
11:01:45 21 excluded, and if returns are measured in  
11:01:47 22 percentages rather than logs, the result would be  
11:01:52 23 1.96.

11:01:56 24 Does that surprise you?

11:01:56 25 MR. KIRSCH: Objection.

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11:01:57 1 THE WITNESS: I don't know either  
11:01:59 2 way. That sounds like if you used partly  
11:02:02 3 what I did and partly the way Dr. Metz did,  
11:02:05 4 can he torture something to get to some  
11:02:09 5 number? I don't know. It doesn't matter  
11:02:11 6 because none of it is worth doing. I don't  
11:02:14 7 know one way or the other.

11:02:14 8 BY MR. BEDNAR:

11:02:15 9 Q. Well, at least for purposes of  
11:02:16 10 preparing your report, someone on your team ran  
11:02:19 11 the regression. Right?

11:02:22 12 MR. KIRSCH: Objection.

11:02:22 13 BY MR. BEDNAR:

11:02:23 14 Q. At least in the backup materials?

11:02:25 15 A. My recollection is we did it because  
11:02:27 16 again we were responding to Dr. Metz's claim.

11:02:29 17 And using Dr. Metz's own data, which  
11:02:32 18 I assume is the way Dr. Metz sees the world,  
11:02:35 19 there is no statistical significance.

11:02:37 20 We may have also provided my model.  
11:02:40 21 But, again, I don't think this is the answer of  
11:02:42 22 any question of which I'm aware.

11:02:49 23 Q. In preparing your report did you  
11:03:02 24 look into ADR prices for industry before  
11:03:06 25 March 29, 2011?

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11:03:08 1 A. I'm sorry, I don't know what you  
11:03:12 2 mean by look at.

11:03:13 3 I mean the market model goes back  
11:03:16 4 120 days.

11:03:16 5 But, I'm not looking day by day, if  
11:03:19 6 that is your question.

11:03:20 7 Q. Okay. And that was my question.  
11:03:23 8 Thank you for clarifying. That is a fair  
11:03:24 9 clarification.

11:03:24 10 I want to talk to you about the  
11:04:14 11 industry index that Dr. Metz used in his event  
11:04:18 12 studies, the S&P Metals and Mining Select Index.

11:04:23 13 Now you came to the conclusion that  
11:04:24 14 that was not a valid industry index for an event  
11:04:27 15 study focused on the APR, correct?

11:04:31 16 A. That is correct.

11:04:32 17 Q. What features of the S&P index --

11:04:40 18 First of all, is it okay if I refer  
11:04:41 19 to that as the S&P index for the purposes of this  
11:04:45 20 discussion?

11:04:45 21 A. Sure.

11:04:46 22 Q. If we need to change and talk about  
11:04:49 23 some other S&P index, we can classify that.

11:04:52 24 What features of the S&P index  
11:04:56 25 render it invalid for use with the Rio Tinto

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11:05:01 1 method, in your opinion?

11:05:02 2 A. It wouldn't include the large  
11:05:04 3 globally diversified mining companies that both  
11:05:07 4 the company and the marketplace compared Rio  
11:05:09 5 Tinto to. And wouldn't have included those large  
11:05:12 6 players, who are mainly non-U.S. companies.

11:05:15 7 It included a lot of firms in  
11:05:18 8 industries unrelated to the core of what Rio  
11:05:23 9 Tinto does. I have provided an exhibit in the  
11:05:25 10 report to illustrate that.

11:05:28 11 Q. And so, you referred to the name,  
11:05:46 12 globally diversified mining companies, that  
11:05:50 13 include a large globally diversified mining  
11:05:54 14 companies.

11:05:54 15 Specifically which ones do you have  
11:05:56 16 in mind?

11:05:56 17 A. Well, the ones that would be at the  
11:05:59 18 top of the HSBC, like Vale, BHP and others that  
11:06:06 19 aren't U.S. companies, would not be in the S&P  
11:06:09 20 Mining Index.

11:06:10 21 Yet those were the comparators that  
11:06:12 22 the firm itself, Rio Tinto, used.

11:06:16 23 Q. Could there be a valid industry  
11:06:32 24 index for an event study focused on Rio Tinto, if  
11:06:35 25 it did not include Vale and BHP?

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11:06:41 1 A. Well, if the purpose is capturing  
11:06:43 2 the industry in which Rio Tinto is occupying, you  
11:06:47 3 would want to have its true comparators which  
11:06:49 4 would be those firms.

11:06:51 5 They are not present in the S&P  
11:06:53 6 Mining Index. And other firms are that are in  
11:06:58 7 the industry that aren't as related to Rio Tinto.

11:06:59 8 The goal of an industry index, from  
11:07:02 9 an academic perspective would be as close to the  
11:07:06 10 true industry comparators to your firm.

11:07:19 11 Q. So, would it be possible to have an  
11:07:21 12 index that would be valid for an event study  
11:07:25 13 focused on Rio Tinto if it did not have Vale and  
11:07:28 14 BHP?

11:07:30 15 A. I don't know what you mean by valid.  
11:07:33 16 If you are trying to capture the actual  
11:07:36 17 comparators, I would think you would want the  
11:07:38 18 actual comparators of the firm.

11:07:39 19 You can use alternative industry  
11:07:44 20 indexes and people can fight over them. I just  
11:07:47 21 don't think the one he used is the best one.

11:07:50 22 Again, the answer he gets is  
11:07:52 23 irrelevant anyway. In my view, it doesn't  
11:07:55 24 matter.

11:07:55 25 But if you are asking me is there a

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11:07:57 1 better index. There absolutely is. I used it to  
11:08:17 2 get it.

11:08:17 3 Q. You said that the S&P Index included  
11:08:22 4 companies in the industry unrelated to the core  
11:08:24 5 of Rio Tinto's operations.

11:08:25 6 What do you mean by that?

11:08:27 7 A. Well, it is described in the report,  
11:08:30 8 as, going from memory, and steel companies, other  
11:08:34 9 companies not directly in the mining business.

11:08:36 10 There is an exhibit early on that I  
11:08:39 11 have. Let me see if I can find it. I think may  
11:08:42 12 be the best way to illustrate it.

11:08:43 13 Exhibit 4 in the report. This is in  
11:08:49 14 the back. So this would look at the composition  
11:08:52 15 of the S&P Index, as you refer to it, that was  
11:08:56 16 used by Dr. Metz, and the HSBC Index.

11:08:59 17 It also contains, you know, the, my  
11:09:05 18 peer index.

11:09:05 19 And you can see that the largest  
11:09:09 20 HSBC Index companies are all in the metal mining  
11:09:13 21 business.

11:09:13 22 Move to the left and compare that  
11:09:15 23 with SPMM, that is lots of different industries.

11:09:24 24 Q. And, Doctor, I'm going to go ahead  
11:09:26 25 and put that on the screen. It is marked as

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11:09:30 1 Exhibit 1115.

11:09:30 2 (Exhibit Number 1115  
11:09:30 3 marked for identification.)

11:09:32 4 THE WITNESS: Yes. That is the  
11:09:33 5 exhibit to which I was referring.

11:09:35 6 BY MR. BEDNAR:

11:09:35 7 Q. Sure. And so, the middle column in  
11:09:39 8 that table, where it says 100 percent, in blue,  
11:09:44 9 that is 100 percent of the top ten largest  
11:09:47 10 companies in the HSBC Mining Index, right?

11:09:50 11 A. That's correct.

11:09:51 12 Q. So, it is not 100 percent of the  
11:09:54 13 HSBC Index, but rather the top ten companies?

11:09:57 14 A. I'm not sure. I don't know that I  
11:09:59 15 have looked at the whole index or this data. The  
11:10:04 16 top ten are about half of the market cap.

11:10:07 17 So, certainly a large part of the  
11:10:09 18 index is in metal mining.

11:10:12 19 Q. And then in that top ten, there is  
11:10:16 20 eight unique companies in the top ten of the HSBC  
11:10:22 21 Index, right?

11:10:22 22 A. I'm sorry, you are breaking up.

11:10:24 23 Q. Sure. The top ten of the HSBC  
11:10:27 24 Index, that is comprised of eight unique  
11:10:30 25 companies, right?

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11:10:30 1 A. That is true. As explained in the  
11:10:33 2 notes, yes.

11:10:33 3 Q. The different colors that are at the  
11:10:37 4 top of Exhibit 1115, your Exhibit 4, the numbers  
11:10:43 5 that appear next to those items such as 10 metal  
11:10:47 6 mining, 33 primary metal industries. What do  
11:10:52 7 those come from?

11:10:53 8 A. Those are SIC codes.

11:10:56 9 Q. And what are SIC codes?

11:10:58 10 A. SIC codes are a variety of -- this  
11:11:04 11 has to do with two digit levels, measures from  
11:11:07 12 what the government calls a standard industrial  
11:11:10 13 classification system of industries.

11:11:12 14 So there is one digit, two digit,  
11:11:14 15 three digit, four digit and so on.

11:11:22 16 Q. And for instance if the companies  
11:11:25 17 have SIC Code 33 for primary metal industries,  
11:11:29 18 how would you characterize companies that have  
11:11:31 19 that code?

11:11:35 20 A. I don't recall off the top of my  
11:11:38 21 head. There are, in the prime -- I'm not sure  
11:11:42 22 which industries the SIC code puts the primary  
11:11:46 23 metals. I don't really recall.

11:11:50 24 It may be in the report but I don't  
11:11:51 25 recall sitting here.

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11:12:00 1 Q. For instance, if the company has a  
11:12:01 2 code of 10 for metal mining, does that mean that  
11:12:05 3 the company only engages in metal mining?

11:12:07 4 A. No, it would mean that it is  
11:12:10 5 principally extractive metal mining.

11:12:15 6 Q. In this context what does  
11:12:17 7 principally mean?

11:12:19 8 A. I don't remember what the threshold  
11:12:21 9 the government uses for the SIC code.

11:12:24 10 Q. Okay. Is there any requirement in  
11:12:33 11 conducting an event study when selecting an  
11:12:36 12 industry index to get consideration to the SIC  
11:12:44 13 codes for the company doing the index?

11:12:45 14 A. I'm sorry. You are breaking up  
11:12:47 15 again. Something about a requirement and an SIC  
11:12:50 16 code.

11:12:50 17 Q. Sure. Is there any requirement to  
11:12:51 18 get consideration to the SIC codes of the  
11:12:54 19 companies in the industry index when conducting  
11:12:56 20 an event study?

11:12:58 21 A. Requirement would be too strong a  
11:13:02 22 word. It would be a metric one would use when  
11:13:06 23 looking at comparability. Requirement sounds  
11:13:09 24 very de regist [phonetic]. That is not what I'm  
11:13:13 25 saying.

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11:13:15 1 Q. Are you familiar with GITS codes,  
11:13:25 2 G-I-T-S?

11:13:25 3 A. Yes, they are privately provided.  
11:13:28 4 But, also are industry classifications.

11:13:32 5 Q. Do you know who provides GITS codes?

11:13:37 6 A. I think it is S&P.

11:13:40 7 Q. And do GITS codes differ from SIC  
11:13:56 8 codes?

11:13:57 9 A. It has been a while since I have  
11:13:58 10 looked at this. They must or S&P wouldn't be  
11:14:02 11 selling them separate for something you could get  
11:14:05 12 for free. I don't recall.

11:14:06 13 Q. And are you familiar with NAICS  
11:14:10 14 codes, N-A-I-C-S?

11:14:11 15 A. Yes. The NAICs, over times, my  
11:14:17 16 recollection is, preceded the old SIC.

11:14:23 17 Q. I'm going to take the exhibit down  
11:14:34 18 just because I'm not going to refer to it right  
11:14:36 19 now.

11:14:36 20 You opined that an appropriate index  
11:14:48 21 would be one made up of companies producing  
11:14:51 22 similar products. Correct?

11:14:53 23 A. Yes. I said similar products,  
11:14:55 24 correct.

11:14:57 25 Q. How do you define similar in that

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11:14:59 1 context?

11:15:03 2 A. If I'm understanding your question,  
11:15:05 3 the product would be, you know, what is being  
11:15:08 4 sold. Would you compare a car company to a  
11:15:12 5 software company? Not as an industry index.

11:15:16 6 There may be other reasons you would  
11:15:18 7 look at the correlations, but not as an industry  
11:15:21 8 index.

11:15:22 9 So, where possible, you are never  
11:15:23 10 going to get it perfectly, you are trying to get  
11:15:25 11 a similar product mix. As much as when you are  
11:15:29 12 valuing companies and use comparable firms, you  
11:15:32 13 have the same idea. You are trying to get things  
11:15:34 14 that are roughly comparable to the firm at issue.

11:15:46 15 Q. So, in trying to ascertain an  
11:15:51 16 appropriate industry index if one were to conduct  
11:15:57 17 an event study for Rio Tinto, what products did  
11:15:59 18 you look for that were similar to those sold by  
11:16:06 19 Rio Tinto?

11:16:06 20 MR. KIRSCH: Tom, I apologize, I  
11:16:09 21 couldn't hear you. You weren't coming  
11:16:11 22 through clearly, to me at least.

11:16:14 23 BY MR. BEDNAR:

11:16:14 24 Q. For the purpose of this event  
11:16:15 25 study -- excuse me.

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11:16:16 1 For the purposes of conducting the  
11:16:18 2 event study for Rio Tinto, what products did you  
11:16:20 3 look for that are similar to those sold by Rio  
11:16:22 4 Tinto?

11:16:23 5 A. Well, again, you are --

11:16:25 6 MR. KIRSCH: Objection.

11:16:25 7 THE WITNESS: I am going to the  
11:16:27 8 discussion in the report, because I think it  
11:16:31 9 might be helpful.

11:16:32 10 You are trying to get as close as  
11:16:34 11 possible again to the products here. So,  
11:16:36 12 this would be firms that are principally in  
11:16:39 13 metals, you know, mining of metals and  
11:16:45 14 industry, much like the SIC 10. I am trying  
11:16:48 15 to see what I said here in the reports.

11:16:51 16 BY MR. BEDNAR:

11:16:52 17 Q. What part of the report are you  
11:16:53 18 referring to?

11:16:53 19 A. I am just looking at the part of the  
11:16:56 20 report criticizing Dr. Metz's index.

11:17:00 21 Q. What page or paragraph?

11:17:02 22 A. Paragraph -- well, I'm just starting  
11:17:07 23 to flip through 32, 33, so on. Yes, for example,  
11:17:18 24 Paragraph 60. And there are some footnotes that  
11:17:22 25 follow about the SIC system.

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11:17:29 1 Q. Are you at Paragraph 60, or are you  
11:17:32 2 now on the next page?

11:17:34 3 A. I started at Paragraph 50, but I  
11:17:37 4 don't really have anything to add to my answer.  
11:17:39 5 It is all there, if you would like to see it.

11:17:41 6 But, you are trying to get as close  
11:17:43 7 as possible in product space.

11:17:46 8 Q. And what I'm asking you is what  
11:17:48 9 products are you trying to get as close as  
11:17:50 10 possible to?

11:17:52 11 A. Well, that is what the discussion  
11:17:54 12 there says. You are trying to get at global  
11:17:57 13 miners which are, you know, large, largely  
11:18:01 14 foreign companies and in similar industry groups.

11:18:05 15 I make the point both about the kind  
11:18:07 16 of company and about the, and about the industry.

11:18:16 17 Q. At Paragraph 61, you state that Rio  
11:18:21 18 Tinto's underlying earnings were derived from  
11:18:26 19 mining metals, including iron, copper, gold, and  
11:18:29 20 silver.

11:18:30 21 Are those the materials that you are  
11:18:31 22 trying to get a similar mix to?

11:18:35 23 A. Well, you are trying to get a -- you  
11:18:37 24 are never going to get exactly the same in any  
11:18:39 25 comparability analysis. But you are trying to

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11:18:42 1 get, you know, other global miners like that.

11:18:44 2 So, you want similar products and  
11:18:46 3 you are looking for similar product mix where  
11:18:49 4 possible.

11:18:49 5 And that is what the next few  
11:18:51 6 paragraphs are trying to do.

11:18:54 7 Q. Are there any other products that  
11:18:56 8 you are trying to have represented in that  
11:18:58 9 product mix?

11:19:01 10 A. I think it is just metals and mining  
11:19:04 11 products that I mention there.

11:19:13 12 Q. So the product that you are looking  
11:19:14 13 for is in the report?

11:19:17 14 A. Yes, in that section. And in the  
11:19:20 15 exhibit that we have talked about earlier.

11:19:27 16 Q. Are there any products represented  
11:19:34 17 in the S&P index that you view as dissimilar to  
11:19:38 18 those sold by Rio Tinto?

11:19:42 19 A. I'm going from memory -- sorry.

11:19:44 20 MR. KIRSCH: Objection. You can  
11:19:49 21 answer, go ahead.

11:19:51 22 THE WITNESS: I'm going from memory.  
11:19:53 23 The answer is many smaller companies, the  
11:19:56 24 different kind of companies and in product  
11:19:58 25 space, things like steel and other products

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11:20:00 1 that are at a different stage of production.  
11:20:05 2 My recollection -- it is all in the report,  
11:20:07 3 but that is my recollection.

11:20:14 4 BY MR. BEDNAR:

11:20:15 5 Q. So, your view is that steel is  
11:20:16 6 different from the products that Rio Tinto sells?

11:20:21 7 A. Yes, from an industry comparability  
11:20:24 8 perspective, yes. That would be true.

11:20:30 9 Q. What about aluminum?

11:20:34 10 A. Well, aluminum yes. And I mean  
11:20:37 11 aluminum is obviously part of the business of the  
11:20:40 12 company.

11:20:42 13 So, it is not -- you know, aluminum  
11:20:46 14 involves --

11:20:47 15 Most aluminum companies involve some  
11:20:50 16 mining as well as refining, although it is mainly  
11:20:54 17 in refining. But there is certainly some in  
11:20:58 18 here.

11:20:58 19 Q. And when you say there are certainly  
11:21:02 20 some in here, what do you mean?

11:21:04 21 A. Well, in other words, there are some  
11:21:06 22 in these indexes, or indices that are aluminum  
11:21:10 23 companies.

11:21:13 24 Q. And when you say in these indices,  
11:21:17 25 are you talking about all of the indices at

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11:21:21 1 issue?

11:21:21 2 A. Certainly in S&P. I don't really  
11:21:24 3 recall in HSBC, one way or the other.

11:21:26 4 Again zero percent of this is in my  
11:21:30 5 report because of the April 8th issue, I should  
11:21:33 6 qualify that.

11:21:34 7 Q. And with respect to the eight  
11:21:36 8 company comparator index that you used for some  
11:21:43 9 of your analyses, is aluminum in that index?

11:21:45 10 A. I don't remember. I would have to  
11:21:48 11 look. That may well be the case.

11:21:55 12 Q. And, so you mentioned steel. Are  
11:22:09 13 there any other products that it would be  
11:22:21 14 problematic to include in your industry index?

11:22:23 15 A. That is what comes to mind. Again,  
11:22:26 16 you are just -- the question one normally asks  
11:22:29 17 oneself is what are you trying to get close to.

11:22:32 18 You are trying to get close to  
11:22:34 19 globally diversified mining and metals company.

11:22:42 20 Q. Does every company in the index need  
11:22:44 21 to be close to the mix in products that the  
11:22:49 22 company you are studying has?

11:22:53 23 MR. KIRSCH: Objection.

11:22:54 24 THE WITNESS: Ideally --

11:22:55 25 MR. KIRSCH: For what purpose, Tom?

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11:22:58 1 MR. BEDNAR: For the purpose of  
11:23:01 2 constructing a valid industry index.

11:23:04 3 MR. KIRSCH: Thank you.

11:23:05 4 THE WITNESS: You are asking a very  
11:23:06 5 general question. Let me try to relate it to  
11:23:10 6 this case.

11:23:10 7 In this case the issue is that, you  
11:23:12 8 know, none of the obvious companies would be  
11:23:15 9 in Dr. Metz's index.

11:23:17 10 So, the question is does every,  
11:23:19 11 every company in the index have to be a  
11:23:22 12 perfect comparable? Well, no, it can't ever  
11:23:24 13 be. That is why I used a variety of  
11:23:28 14 measures.

11:23:28 15 But I think the troubling problem  
11:23:30 16 for Dr. Metz is that the obvious comparables  
11:23:35 17 aren't even in his.

11:23:38 18 BY MR. BEDNAR:

11:23:38 19 Q. And by that, are you referring to  
11:23:41 20 Vale and BHP?

11:23:42 21 A. The large, yes, metal mining  
11:23:46 22 companies that aren't U.S.

11:23:48 23 Q. Are all of the companies that are in  
11:23:50 24 the eight company comparator index that you used,  
11:23:53 25 are all of those obvious comparators, too?

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11:23:56 1 A. You lost me there. I'm sorry. You  
11:23:59 2 broke up.

11:23:59 3 Q. The eight companies, in the eight  
11:24:02 4 company peer index that you used for some  
11:24:04 5 analyses, do you consider all of those to be  
11:24:08 6 obvious comparators that should be included in  
11:24:10 7 the industry index?

11:24:12 8 A. The company did. The company, the  
11:24:14 9 eight comparators were the -- if you are asking  
11:24:18 10 about my H8 index, were the ones the company used  
11:24:22 11 in 2011. So, yes.

11:24:27 12 Q. Do you consider those to be obvious  
11:24:30 13 comparators that should be included in a valid  
11:24:33 14 industry index?

11:24:34 15 A. I think that that could be certainly  
11:24:38 16 a measure. There is no single perfect measure.  
11:24:43 17 The interesting questions for this case actually  
11:24:45 18 don't turn on it.

11:24:47 19 But, there is no single question --  
11:24:49 20 there is no single perfect answer.

11:24:52 21 Q. Returning to products that are or  
11:25:00 22 are not similar to those sold by Rio Tinto.

11:25:04 23 Does the presence of coal companies  
11:25:12 24 make any difference to your views on whether the  
11:25:17 25 industry index is proper or improper compared to

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11:25:23 1 Rio Tinto?

11:25:25 2 A. Well, again, it is a matter of  
11:25:27 3 degree. Coal would be smaller for Rio Tinto,  
11:25:33 4 than from some obviously pure play coal  
11:25:36 5 companies, if that is your question.

11:25:41 6 Q. What do you mean by pure play coal  
11:25:45 7 companies?

11:25:45 8 A. Companies that are in the coal  
11:25:47 9 business.

11:25:51 10 Q. When you say coal would be smaller  
11:25:54 11 for Rio Tinto, you mean it may be a smaller  
11:25:57 12 percentage of Rio Tinto's earnings than say iron  
11:26:00 13 ore?

11:26:01 14 A. Vastly smaller, yes.

11:26:03 15 Q. And because coal is the smaller  
11:26:06 16 portion of Rio Tinto's earnings, would it be  
11:26:09 17 improper to include companies that are focused  
11:26:12 18 primarily on coal?

11:26:13 19 A. Again, not necessarily. There is no  
11:26:18 20 single perfect answer here. You are never going  
11:26:20 21 to find exact comparables.

11:26:24 22 The argument I have with Dr. Metz is  
11:26:26 23 not like around the edges, you should have done  
11:26:28 24 this, you should have done that.

11:26:29 25 Is that the, A, the exercise isn't

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11:26:33 1 worth doing and, B, it didn't include any of the  
11:26:35 2 obvious companies.

11:26:36 3 That is really the issue. It is not  
11:26:38 4 about this rounding error discussion.

11:26:46 5 Q. So, when you say you didn't include  
11:26:48 6 any of the obvious companies, the S&P Metals and  
11:26:52 7 Mining Index has Newmont Mining, right?

11:27:04 8 A. Yes, and indeed the H8, I believe  
11:27:07 9 has Newmont Mining.

11:27:08 10 Q. Right. So, is that not one of the  
11:27:10 11 obvious companies that needed to be included?

11:27:13 12 A. It would be in the smaller end of  
11:27:15 13 big companies. But, yes, that is a company.

11:27:17 14 Q. And, the S&P Metals and Mining Index  
11:27:21 15 has Alcoa, right?

11:27:24 16 A. I believe that is true.

11:27:26 17 Q. And that is in the list of eight  
11:27:28 18 comparator firms, right?

11:27:29 19 A. That is my recollection, yes.

11:27:35 20 Q. And so is Alcoa not one of the  
11:27:39 21 obvious comparators?

11:27:40 22 A. Certainly a comparator from the  
11:27:42 23 company's perspective for that year.

11:27:45 24 Q. And, for McMoRan, that is also from  
11:27:48 25 the S&P9 mining index, right?

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11:27:50 1 A. I'm sorry. You are breaking up, I  
11:27:53 2 couldn't hear.

11:27:53 3 Q. The company is Freeport-McMoRan --

11:28:02 4 A. Okay. I think I heard you say  
11:28:05 5 Freeport. I'm not hearing you so --

11:28:06 6 MR. BEDNAR: Okay. Let's go off the  
11:28:07 7 record and I will try and fix my headset  
11:28:10 8 here. Can we go off the record for a very  
11:28:12 9 short break.

11:28:14 10 THE WITNESS: Okay.

11:28:14 11 THE VIDEOGRAPHER: We are going off  
11:28:15 12 the record, the time is 11:28 eastern.

11:30:47 13 (Recess taken -- 11:28 a.m.)

11:31:03 14 (After recess -- 11:39 a.m.)

11:38:58 15 THE VIDEOGRAPHER: We are going back  
11:39:05 16 on the record. The time is 11:39 eastern.

11:39:10 17 BY MR. BEDNAR:

11:39:10 18 Q. And, Dr. Hubbard, thanks for taking  
11:39:14 19 that break. I think my audio should work better  
11:39:17 20 now.

11:39:17 21 A. Okay.

11:39:18 22 Q. If at any time you are having  
11:39:21 23 trouble hearing me, Doctor, please let me know  
11:39:23 24 and I will try and improve the connection.

11:39:25 25 Right before we were breaking, I was

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11:39:27 1 trying to ask you were you aware whether the  
11:39:29 2 company Freeport-McMoRan was in the S&P Metals  
11:39:34 3 and Mining Index?

11:39:34 4 A. I don't recall, sorry.

11:39:40 5 Q. And, Freeport was one of the eight  
11:39:47 6 comparator firms that Rio Tinto identified?

11:39:50 7 A. That is my recollection. It would  
11:39:52 8 be in Exhibit 4. But, that is my recollection.  
11:39:54 9 I could check. But, I believe that is the case.  
11:40:00 10 Exhibit -- yes.

11:40:08 11 Q. Now, before I asked you about those  
11:40:13 12 companies, I had asked you about a number of  
11:40:16 13 products.

11:40:16 14 What about copper? Is it important  
11:40:21 15 for copper to be represented in an industry index  
11:40:25 16 that you are using for an event study for Rio  
11:40:32 17 Tinto?

11:40:32 18 A. Rio Tinto is in a lot of metals and  
11:40:35 19 mining business.

11:40:35 20 The question is are you trying to  
11:40:37 21 get companies that are similar both in product  
11:40:39 22 and product mix, so you could imagine it.

11:40:47 23 Q. Would it be important to ensure a  
11:40:51 24 certain level of representation of copper or not?

11:40:56 25 A. Whether it would be one way or the

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11:41:00 1 other, I don't recall the importance of it to Rio  
11:41:04 2 Tinto.

11:41:04 3 What we are trying to do is get a  
11:41:08 4 common shock. So, the same thing that would move  
11:41:10 5 the industry index would be, you know, important  
11:41:12 6 in driving movements in the firm. That is what  
11:41:15 7 you are trying to get at. But, I don't recall.

11:41:17 8 Q. What about oil?

11:41:24 9 MR. KIRSCH: Objection. What is the  
11:41:25 10 question?

11:41:27 11 BY MR. BEDNAR:

11:41:27 12 Q. Would it be important to have oil  
11:41:32 13 represented or not represented in an industry  
11:41:34 14 index that is used for a Rio Tinto event study?

11:41:40 15 A. I wouldn't think of it as natural,  
11:41:44 16 no. Those are the kinds of shocks that dominate  
11:41:49 17 the oil industry. And you couldn't rule it out  
11:41:52 18 depending on what else the company does.

11:41:54 19 But if you are asking about oil as a  
11:41:56 20 commodity, it wouldn't seem spot on.

11:42:06 21 Q. Would it present any problems to  
11:42:10 22 have oil represented in a significant way in an  
11:42:14 23 industry index for purposes of a Rio Tinto event  
11:42:18 24 study?

11:42:18 25 A. I don't know that it would.

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11:42:44 1 Q. How did you determine what SIC codes  
11:42:46 2 were similar for purposes of determining what SIC  
11:42:51 3 codes should be represented in an industry index?

11:42:59 4 A. Well, based on the business that the  
11:43:00 5 company described, I think early in my report I  
11:43:04 6 listed the company's major lines of business, and  
11:43:06 7 tried to find the SIC codes that correlate to  
11:43:10 8 that.

11:43:10 9 I don't know remember whether the  
11:43:11 10 company refers to those in its own documents or  
11:43:13 11 not, off the top of my head.

11:43:20 12 Q. And so are you simply looking for  
11:43:23 13 SIC codes that contain those products that Rio  
11:43:25 14 Tinto -- that are most important to Rio Tinto?

11:43:28 15 A. In a matter of speaking, yes.  
11:43:34 16 Companies tracked by segments with SIC  
11:43:36 17 identifiers. But yes, trying to get it  
11:43:39 18 comparable to Rio Tinto, if that is the question.

11:43:42 19 Q. Okay. And then in terms of SIC  
11:43:45 20 codes that aren't similar to Rio Tinto, is that  
11:43:48 21 just SIC codes that don't feature products that  
11:43:51 22 are important to Rio Tinto?

11:43:52 23 Or how do you make that  
11:43:54 24 determination?

11:43:55 25 A. Well, I think that is a very big

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11:43:59 1 one. Another might be very different stages of  
11:44:02 2 production so that the shocks are very different.

11:44:06 3 There are a number of reasons two  
11:44:09 4 firms may not be common.

11:44:21 5 Q. Is there any authority in peer  
11:44:24 6 reviewed literature for determining which SIC  
11:44:26 7 codes are or are not similar?

11:44:28 8 A. I think that is a judgment matter.  
11:44:36 9 The peer reviewed literature really just talks  
11:44:38 10 about in general what makes a good industry  
11:44:40 11 index.

11:44:41 12 But, it is obviously up to the  
11:44:43 13 researcher to try to identify that and make his  
11:44:45 14 or her case.

11:44:46 15 Q. Uh-huh. Now, I think that you  
11:44:48 16 alluded to companies that make steel or  
11:44:56 17 manufacture other metal products.

11:44:58 18 How does the presence or absence of  
11:45:02 19 such companies affect your view of an industry  
11:45:05 20 index for a Rio Tinto event study?

11:45:09 21 A. Well, if you think about -- again  
11:45:12 22 Rio Tinto's earnings are dominated by iron ore  
11:45:17 23 which is an input.

11:45:18 24 But, think about two products. One  
11:45:20 25 of which is an input to another. It depends what

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11:45:24 1 kind of shocks you have, whether you would want  
11:45:26 2 to view those as being related to one another.

11:45:28 3 So, to be specific, if all shocks  
11:45:31 4 are simply to global demand, global demand may  
11:45:38 5 raise demand both for final products and for  
11:45:41 6 commodities. It would be good for both.

11:45:43 7 Some shocks may affect commodity  
11:45:47 8 prices but hurt the firms that use those  
11:45:49 9 commodities in terms of their own profits.

11:45:52 10 So, typically you wouldn't want  
11:45:55 11 different stages of production, unless you had a  
11:45:57 12 theory that all the shocks come from one place.  
11:46:00 13 That is a basic index theory.

11:46:04 14 THE VIDEOGRAPHER: If I could jump  
11:46:05 15 in for a second. It sounds like we are  
11:46:07 16 getting a lot of background noise from  
11:46:11 17 call-in user Number 1917670.

11:46:16 18 Would it be possible for them to  
11:46:18 19 mute themselves.

11:46:32 20 THE WITNESS: It doesn't look like  
11:46:33 21 they are muted. It is not me, but --

11:46:36 22 THE VIDEOGRAPHER: I'm not hearing  
11:46:37 23 them now anyway.

11:46:39 24 THE WITNESS: Okay.

11:46:42 25 BY MR. BEDNAR:

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11:46:45 1 Q. And I'm sorry to go back, Doctor,  
11:46:47 2 but I asked you about several products and I  
11:46:50 3 think I neglected one.

11:46:52 4 What about gold? Is it important to  
11:46:54 5 you that gold be represented or not represented  
11:46:56 6 in an industry index for a Rio Tinto event study?

11:47:03 7 A. It certainly is an example of a  
11:47:08 8 metal. And to the extent that there are similar  
11:47:11 9 mixes, I could make arguments either way in an  
11:47:15 10 index, depending on mix of businesses the firm  
11:47:18 11 is in.

11:47:19 12 Q. I'm talking specifically for Rio  
11:47:21 13 Tinto. For an event study here that is  
11:47:25 14 evaluating Rio Tinto, is it significant to you  
11:47:27 15 that gold either be included or not be included  
11:47:30 16 in the industry index?

11:47:33 17 A. I wouldn't say either way. I would  
11:47:35 18 say it could or could not.

11:47:39 19 For example, I think some years Rio  
11:47:43 20 Tinto included Newmont as a comparison.  
11:47:47 21 Sometimes it didn't. So, I think it could go  
11:47:49 22 either way.

11:47:54 23 Q. Based on your analysis of Rio  
11:47:56 24 Tinto's annual reports, did you reach any  
11:48:01 25 conclusion as to whether gold should be

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11:48:03 1 represented in an industry index?

11:48:08 2 A. I think I answered I didn't reach  
11:48:10 3 the conclusion. I'm not sure whether the annual  
11:48:14 4 report would have helped me.

11:48:14 5 But, I have said you could make the  
11:48:16 6 argument either way. The company in some years  
11:48:18 7 did include a gold company and in some years it  
11:48:22 8 did not.

11:48:22 9 Q. So, specific reference to financial  
11:48:26 10 statements. So, I think you concluded iron ore  
11:48:29 11 was a very significant part of Rio Tinto's  
11:48:32 12 earnings, right?

11:48:33 13 A. About 85 percent, yes.

11:48:34 14 Q. And did you draw any conclusions  
11:48:36 15 about the relative significance of gold to Rio  
11:48:38 16 Tinto's earnings?

11:48:40 17 A. I really don't recall. It may be in  
11:48:44 18 the report, but I don't recall.

11:48:52 19 Q. Same with copper. Do you recall any  
11:48:55 20 conclusions about the relative significance of  
11:48:57 21 copper to Rio Tinto's earnings?

11:48:59 22 A. I don't. I may have put them in the  
11:49:01 23 report. But, aside from memory, it is just the  
11:49:04 24 dominance of iron ore.

11:49:05 25 Q. Uh-huh. And I'm sorry to jump

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11:49:21 1 around.

11:49:22 2 But going back to the issue of steel  
11:49:24 3 manufacturing companies, to make sure that I  
11:49:29 4 understand, you are not expressing views that  
11:49:32 5 steel stocks would always be negatively impacted  
11:49:37 6 by rising iron ore prices. Is that correct?

11:49:41 7 MR. KIRSCH: Objection.

11:49:42 8 THE WITNESS: That is correct. It  
11:49:43 9 would depend on the shock that is generating  
11:49:46 10 the movement in both. Nor would it be the  
11:49:48 11 case that it is obvious that it would. So,  
11:49:52 12 it is --

11:49:52 13 BY MR. BEDNAR:

11:49:53 14 Q. Okay. Did you do any analysis to  
11:50:08 15 evaluate the extent to which the stock price  
11:50:13 16 returns of iron ore miners are or are not  
11:50:17 17 correlated with the stock price returns of steel  
11:50:22 18 manufacturers?

11:50:24 19 A. I don't recall doing that, no. I'm  
11:50:29 20 not sure why I would.

11:50:29 21 (Audio interference.)

11:50:33 22 -- just made, I wouldn't really  
11:50:35 23 learn much other than the stocks that dominated  
11:50:39 24 that period.

11:50:40 25 Q. And so I want to put up your report

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11:51:19 1 and take you to Paragraph 36, which is on Page 20  
11:51:28 2 of the report, Page 24 of the PDF.

11:51:45 3 And towards the bottom half of the  
11:51:47 4 paragraph, you write, "For example, steel  
11:51:48 5 manufacturers, which make up 19 percent of  
11:51:51 6 Dr. Metz's index, use raw materials such as iron  
11:51:56 7 ore and coke in their production.

11:51:57 8 "Therefore an increase in the price  
11:51:59 9 of iron ore or other commodities may negatively  
11:52:03 10 affect steel manufacturers' earnings and their  
11:52:09 11 stock prices, the opposite effect such a price  
11:52:13 12 increase would be expected to have on a company  
11:52:16 13 like Rio Tinto, whose revenues and profits  
11:52:19 14 increase as commodity prices increase."

11:52:21 15 Did I read that correctly? Doctor,  
11:52:30 16 did I read that section correctly?

11:52:36 17 MR. KIRSCH: Glenn, I think you are  
11:52:38 18 muted.

11:52:44 19 MR. BEDNAR: We are not able to hear  
11:52:46 20 you, Doctor. You should check on your phone  
11:52:48 21 and your computer to make sure that they are  
11:52:51 22 both not on mute.

11:52:56 23 THE WITNESS: The phone is not on  
11:52:57 24 mute. I may have to log off --

11:52:59 25 MR. KIRSCH: Okay, Doctor.

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11:53:00 1 THE WITNESS: You got me? Okay.

11:53:01 2 MR. BEDNAR: Yes.

11:53:01 3 THE WITNESS: I don't know what  
11:53:01 4 happened. Okay. Sorry.

11:53:01 5 I had answered your question, yes,  
11:53:02 6 you did read that correctly.

11:53:03 7 BY MR. BEDNAR:

11:53:04 8 Q. Okay. I was worried that you had a  
11:53:07 9 lengthy critique of my reading of that.

11:53:09 10 A. No, no. It is not controversial.

11:53:12 11 Q. Okay. If I can't get that part  
11:53:16 12 right, it is going to be a long day.

11:53:19 13 And so, I want to make sure that I  
11:53:20 14 understand this sentence where you say that an  
11:53:24 15 increase in the price of iron ore or other  
11:53:28 16 commodities may negatively affect steel  
11:53:31 17 manufacturers' earnings and their stock prices.

11:53:35 18 It also may not negatively affect  
11:53:38 19 their earnings and their stock prices, right?

11:53:41 20 A. Right, it would depend on the  
11:53:44 21 shocks. And since you don't know what kind of  
11:53:46 22 shocks would be dominating data over that period,  
11:53:48 23 it wouldn't be a natural marriage for an index.

11:53:51 24 But, yes, depending on the shocks  
11:53:53 25 you experience, ex post, that correlation can go

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11:53:56 1 one way or the other.

11:53:57 2 Q. Sure. And, have you done any  
11:54:01 3 analysis then to determine whether stock prices  
11:54:05 4 are more often correlated with iron ore prices  
11:54:08 5 than not?

11:54:11 6 A. Sorry. When you say stock prices,  
11:54:13 7 do you mean Rio Tinto, or what?

11:54:15 8 Q. Yes.

11:54:16 9 A. I'm sorry. Correlated with what?

11:54:19 10 Q. Well, have you done either? Did you  
11:54:21 11 do any analysis to determine whether Rio Tinto  
11:54:23 12 was or was not correlated with the stock prices  
11:54:26 13 of the steel company?

11:54:28 14 A. I don't recall. Sorry. I may have.

11:54:34 15 Q. Okay.

11:54:34 16 A. I wouldn't -- I'm not supposed to  
11:54:38 17 make the answer because of what that paragraph  
11:54:40 18 says, but I don't recall one way or the other.

11:54:41 19 Q. Okay. And did you, if you did,  
11:54:44 20 would it be in the backup that was produced with  
11:54:46 21 your report?

11:54:48 22 A. Well, I think if it came up, it is  
11:54:51 23 in response to Dr. Metz's deposition, where he  
11:54:54 24 raised this. And that is the first time I have  
11:54:58 25 seen this argument from Dr. Metz.

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11:55:00 1 I don't recall one way or the other.

11:55:02 2 Q. And then similarly, did you do any  
11:55:07 3 analysis as to whether -- whether or not there  
11:55:12 4 was a correlation between the stock prices of  
11:55:15 5 steel companies and the price of iron ore?

11:55:20 6 A. The same answer, I don't recall  
11:55:26 7 doing that one way or the other, for the reasons  
11:55:28 8 that I state in Paragraph 36.

11:55:42 9 Q. Did you develop a view as to whether  
11:55:59 10 for purposes of conducting an event study of Rio  
11:56:04 11 Tinto, that a proper industry index should have a  
11:56:11 12 correlation to iron ore prices?

11:56:17 13 A. Well, that is an example -- I guess  
11:56:20 14 you are trying to get -- you are talking about  
11:56:22 15 comparing firms. You are trying to get a firm  
11:56:25 16 whose product mix and footprint is as similar as  
11:56:29 17 possible. So, in that sense iron ore is very  
11:56:34 18 important for Rio Tinto.

11:56:34 19 But, you could be in other  
11:56:36 20 businesses, too, if I am understanding your  
11:56:39 21 question.

11:56:39 22 Q. Sure. To be a proper index for an  
11:56:49 23 event study on Rio Tinto, does the industry index  
11:56:51 24 need to be correlated with changes in iron ore  
11:56:56 25 prices?

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11:56:57 1 A. That is a hard question to answer  
11:57:00 2 because you are looking ex post at data that are  
11:57:04 3 subject to different shocks. I think the way I  
11:57:08 4 would define it before is it should be, you know,  
11:57:11 5 similar footprint as possible which may well mean  
11:57:16 6 a correlation by prices.

11:57:19 7 But, I haven't looked at that one  
11:57:21 8 way or the other.

11:57:25 9 Q. And I think you had a critique of  
11:57:28 10 the S&P Metals and Mining Index because it was  
11:57:30 11 down on April 8th, of 2011, while you contend  
11:57:34 12 that certain metals prices were up on the day.

11:57:37 13 Do you recall making that critique?

11:57:39 14 A. I do. I didn't just contend it. I  
11:57:42 15 mean, that is a fact, but, yes.

11:57:44 16 Q. So, specifically what metals prices  
11:57:50 17 do you have in mind?

11:57:52 18 A. I don't remember. I said so in the  
11:57:55 19 report. If we need to go find that, if it is  
11:57:59 20 important, or --

11:58:00 21 Q. Sure. So, it is -- I can find the  
11:58:10 22 page and take you to it in just a moment. So,  
11:58:34 23 specifically, Paragraphs 57 and 58 of your  
11:58:38 24 report.

11:58:38 25 A. Okay.

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11:58:38 1 Q. Pages 36 and 37 of the PDF.

11:58:43 2 A. I am there.

11:58:44 3 Q. In the hard copy, it is Pages 32 to  
11:58:47 4 33.

11:58:48 5 A. Yes.

11:58:48 6 Q. Okay. And so you say that in 57,  
11:58:53 7 "Dr. Metz claims there was no confounding  
11:58:56 8 information, that is other information released  
11:58:58 9 around the same time that could also potentially  
11:59:01 10 have an impact on Rio Tinto's ADR price and  
11:59:05 11 explain the abnormal returns he finds for Rio  
11:59:09 12 Tinto's ADR on April 8, 2011.

11:59:12 13 "However, he failed to consider that  
11:59:15 14 metal prices increased on April 8, 2011, which  
11:59:18 15 several news reports noted had driven a general  
11:59:21 16 increase in stock prices across the mining sector  
11:59:24 17 that day."

11:59:25 18 And then you quote from several news  
11:59:28 19 sources on that page, also on Paragraph 57. Do  
11:59:30 20 you see that?

11:59:35 21 A. Yes.

11:59:41 22 Q. Do you recall what metals prices  
11:59:42 23 were up on April 8th?

11:59:52 24 MR. BEDNAR: Doctor, I think you  
11:59:53 25 might be on mute again. We are not hearing.

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12:00:00 1                   Okay, I think I will ask Glen to  
12:00:02 2                   take us off the record so Dr. Hubbard can  
12:00:07 3                   just try to dial right back in.

12:00:08 4                   THE VIDEOGRAPHER: We are going off  
12:00:09 5                   the record, the time is 12 o'clock eastern.

12:00:09 6                   (Recess taken -- 12:00 p.m.)

12:01:09 7                   (After recess -- 12:01 p.m.)

12:01:09 8                   THE VIDEOGRAPHER: We are going back  
12:01:19 9                   on the record. The time is 12:01 eastern.

12:01:24 10          BY MR. BEDNAR:

12:01:25 11               Q.       And, Dr. Hubbard, I will also direct  
12:01:27 12               your attention to Paragraph 58 in which you  
12:01:32 13               write, "In addition, the Metal Bulletin, which  
12:01:35 14               publishes frequently cited iron or price indices  
12:01:40 15               reported on April 11th -- or, excuse me, on  
12:01:43 16               April 8, 2011, that iron ore stock prices, upon  
12:01:47 17               which 85 percent of Rio Tinto's underlying  
12:01:51 18               earnings in 2011 relied, had increased." And  
12:01:55 19               then you go on further in that paragraph.

12:01:59 20               I want to kind of take you through  
12:02:04 21               some of the sources that you cite here.

12:02:09 22               A.       Okay.

12:02:10 23               Q.       The first would be if we look at the  
12:02:14 24               very first bullet point on Page 57 with respect  
12:02:17 25               to rising metal prices.

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12:02:18 1 And, in Footnote 164, you cite a  
12:02:26 2 news article from the Xinhua News Agency on  
12:02:32 3 April 8th.

12:02:32 4 (Exhibit Number 1144  
12:02:32 5 marked for identification.)

12:02:32 6 BY MR. BEDNAR:

12:02:33 7 Q. And so, I will pull up Exhibit 1144,  
12:02:43 8 which is that article. And as you see, the  
12:02:51 9 article in the second paragraph, it has the  
12:02:53 10 language that you quoted. That article doesn't  
12:02:56 11 identify what the metal prices are that were  
12:02:59 12 rising, does it?

12:03:01 13 A. That is correct. I don't see it  
12:03:05 14 here.

12:03:05 15 (Exhibit Number 1209  
12:03:05 16 marked for identification.)

12:03:06 17 BY MR. BEDNAR:

12:03:06 18 Q. And, in Exhibit 1209, that is the  
12:03:22 19 Dow Jones International article that is cited in  
12:03:27 20 the next bullet point, Footnote 165 of your  
12:03:33 21 report.

12:03:42 22 And, the very first sentence says  
12:03:53 23 "FTSE 100 ends higher, led by heavily-weighted  
12:03:57 24 mining stocks on the back of firm metals prices."

12:03:58 25 Again, that doesn't specify which

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12:04:02 1 metals' prices rose that day, right?

12:04:05 2 A. Correct.

12:04:05 3 Q. And it actually says on the back of  
12:04:09 4 firm metals prices, correct?

12:04:13 5 A. I am sorry. It says firm metal  
12:04:15 6 prices. In other words, good metal prices.

12:04:20 7 Q. Yes. Did you take that to mean  
12:04:22 8 metals prices were up or metals prices were at  
12:04:26 9 the same level? Or can you tell what that means?

12:04:31 10 A. Well, I haven't come back to look at  
12:04:36 11 the data in a while.

12:04:37 12 It is highlighting metals as driving  
12:04:41 13 prices. So, one would assume high prices, but I  
12:04:44 14 haven't gone back to look at the data.

12:04:46 15 Q. In the third bullet point, which  
12:04:55 16 cites Footnote 166, you cite a -- it cites a Dow  
12:05:08 17 Jones International news article. We were able  
12:05:09 18 to identify a Market Watch article with the same,  
12:05:14 19 same headline and your same quotation.

12:05:17 20 A. Okay.

12:05:18 21 Q. Do you know as you sit here today --

12:05:21 22 MR. KIRSCH: Tom, I'm sorry, which  
12:05:23 23 exhibit are you looking at now?

12:05:23 24 (Exhibit Number 1134

12:05:23 25 marked for identification.)

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12:05:24 1 MR. BEDNAR: Yes, I'm sorry, Mark,  
12:05:25 2 it is Exhibit 1134. Exhibit 1134.

12:05:29 3 MR. KIRSCH: Thank you.

12:05:30 4 BY MR. BEDNAR:

12:05:32 5 Q. Dr. Hubbard, do you know, one way or  
12:05:34 6 the other, is there a chance that your citation  
12:05:37 7 that you could have meant to refer to this Market  
12:05:41 8 Watch article, that has the same line and the  
12:05:42 9 same text.

12:05:42 10 A. It is certainly possible. You  
12:05:44 11 should have all of these in the backup. But, it  
12:05:46 12 is certainly possible.

12:05:47 13 Q. Okay. And the first sentence says  
12:05:53 14 that, "European markets advance Friday, followed  
12:05:58 15 by a rally in Japanese stocks overnight and solid  
12:06:06 16 gains for the mining sector as precious metal  
12:06:09 17 prices rose once again."

12:06:11 18 What is your understanding in the  
12:06:12 19 context of what the precious metals are?

12:06:14 20 A. My recollection is this is just an  
12:06:17 21 example of confounding information from a metals  
12:06:22 22 price shock occurring at the same time that  
12:06:28 23 Dr. Metz thinks he is measuring control. That is  
12:06:31 24 I think what all of this is about.

12:06:40 25 Q. What are the precious metals that

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12:06:42 1 are being referred to here?

12:06:43 2 A. It doesn't list them in the  
12:06:44 3 articles -- in the article.

12:06:48 4 Q. Was Rio Tinto a miner of precious  
12:06:51 5 metals?

12:06:54 6 A. Well, depends on your view of  
12:06:57 7 precious. But, not importantly, I wouldn't say.

12:06:59 8 It is a question, metals generally  
12:07:01 9 leading together, as the other article suggested.

12:07:04 10 But, no, I don't think of it as  
12:07:06 11 principally a precious metal firm.

12:07:09 12 Q. And did you analyze what percentage  
12:07:10 13 of the S&P Metals and Mining Index is weighted  
12:07:15 14 towards precious metals miners?

12:07:18 15 A. I don't recall doing that, no.

12:07:21 16 Q. What about the HSBC Mining Index?

12:07:24 17 A. I don't recall doing that, no.

12:07:27 18 Q. Okay. This news report doesn't  
12:07:36 19 refer to iron ore prices, does it?

12:07:39 20 A. This particular report does not  
12:07:41 21 mention iron ore. That is true.

12:07:43 22 Q. If you look at the sixth paragraph  
12:07:50 23 down, which on this version is highlighted. The  
12:07:54 24 report says, "Miners advanced Friday helped by  
12:07:57 25 news that Rio Tinto PLC has clinched a majority

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12:08:01 1 interest in long-pursued Riversdale Mining,  
12:08:06 2 boosting chances its takeover offer will be  
12:08:09 3 approved."

12:08:09 4 Did I read that correctly?

12:08:10 5 A. You did.

12:08:11 6 Q. The fourth bullet point in  
12:08:13 7 Paragraph 57 of your report cites to  
12:08:17 8 Footnote 167, which is a Wall Street Journal  
12:08:21 9 article. And that is Exhibit 1133.

12:08:25 10 A. Okay.

12:08:25 11 (Exhibit Number 1133  
12:08:25 12 marked for identification.)

12:08:25 13 BY MR. BEDNAR:

12:08:25 14 Q. And I will pull that up. The lead  
12:08:33 15 of the article refers to solid gains for the  
12:08:36 16 mining sector as metal prices rise once again.

12:08:43 17 Do you see in the -- I think it is  
12:08:50 18 the sixth paragraph down, there is a reference to  
12:08:53 19 it says, "Miners advanced, helped by news that  
12:08:56 20 Rio Tinto had clinched the majority interest in  
12:08:59 21 long pursued Riversdale Mining."

12:09:02 22 Do you see that?

12:09:02 23 A. I do.

12:09:03 24 Q. And then the next paragraph, this  
12:09:06 25 specifies the specific prices. That, "Gold

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12:09:08 1 prices rose once again as a weaker dollar and  
12:09:12 2 concerns about inflation led investors to seek  
12:09:16 3 refuge in precious metals."

12:09:18 4 Did I read that correctly?

12:09:20 5 A. Yes, along with copper and silver.

12:09:22 6 Q. And silver.

12:09:23 7 A. But, that is what is referred to  
12:09:25 8 there.

12:09:25 9 Q. And within the context of reporting  
12:09:27 10 on those specific precious metal prices, the Wall  
12:09:33 11 Street Journal reported on gains for Barrick  
12:09:36 12 Gold, Randgold, which are gold miners. And then  
12:09:41 13 the silver miner, Fresnillo, right?

12:09:46 14 A. That is what is in the report, yes.

12:09:47 15 Q. And the article doesn't mention  
12:09:48 16 anything about iron ore prices, does it?

12:09:51 17 A. That is certainly true.

12:09:53 18 Q. And then the last bullet point,  
12:09:56 19 which goes to Footnote 168, refers to an article  
12:10:03 20 in Market Watch. Exhibit 1135.

12:10:03 21 (Exhibit Number 1135  
12:10:03 22 marked for identification.)

12:10:03 23 BY MR. BEDNAR:

12:10:23 24 Q. If you go midway through the page,  
12:10:24 25 Market Watch writes, "Miners ranked among the top

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12:10:28 1 gainers in London's benchmark index as gold,  
12:10:33 2 silver and copper prices rose sharply."

12:10:36 3 And then again there is a reference  
12:10:38 4 to Rio Tinto rising after acquiring the majority  
12:10:41 5 interest in Riversdale.

12:10:43 6 There is no mention of Rio Tinto in  
12:10:45 7 connection with those rising metals prices,  
12:10:49 8 correct?

12:10:49 9 A. Not in this article.

12:10:51 10 Q. And there is no mention of iron ore  
12:10:56 11 prices in this article?

12:10:57 12 A. That is certainly true.

12:11:02 13 Q. If I take you back to your report,  
12:11:19 14 at Paragraph 58. You state that the Metal  
12:11:34 15 Bulletin reported on April 8th that iron ore spot  
12:11:37 16 prices had increased. Right?

12:11:40 17 A. Yes.

12:11:40 18 Q. And then, taking you down to the  
12:11:44 19 bottom of the page. In connection with that  
12:11:50 20 statement, you cite in Footnote 168 -- I'm sorry,  
12:11:59 21 I'm referring to --

12:12:00 22 A. 170 --

12:12:03 23 Q. Yes. 170, you refer to the Metal  
12:12:09 24 Bulletin report as well as the report in the  
12:12:10 25 Hobart Mercury, right?

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12:12:13 1 A. Yes.

12:12:13 2 Q. You cite those for the proposition  
12:12:27 3 that iron ore spot prices increased on April 8th.  
12:12:33 4 Is that correct?

12:12:33 5 A. Yes, sir.

12:12:34 6 Q. And is it your assertion that iron  
12:12:37 7 ore prices increased on April 8th or that they  
12:12:40 8 increased at some point prior to April 8th?

12:12:44 9 A. That is when it is recorded. I  
12:12:47 10 don't really recall the exact news article. When  
12:12:52 11 was that announced, I don't recall.

12:12:52 12 (Exhibit Number 1138  
12:12:52 13 marked for identification.)

12:12:54 14 BY MR. BEDNAR:

12:12:54 15 Q. Okay. So, pull up Exhibit 1138,  
12:13:03 16 which is the report from the Hobart Mercury,  
12:13:06 17 dated 8 April 2011.

12:13:10 18 Is this the article that you were  
12:13:13 19 citing in Footnote 170 of your report?

12:13:17 20 A. Yes, sir.

12:13:20 21 Q. Do you know what country the Hobart  
12:13:23 22 Mercury is published in?

12:13:26 23 A. I would presume Australia or New  
12:13:30 24 Zealand. I don't remember which. I'm sorry.

12:13:32 25 Q. That is okay. So, if an article in

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12:13:34 1 the Hobart Mercury has a publication date of  
12:13:38 2 8 April, would the date of the publication of  
12:13:40 3 that news in New York be the 7th of April 2011?

12:13:43 4 A. Okay.

12:13:49 5 Q. Do you agree with that?

12:13:51 6 A. I am sorry. I don't -- I can  
12:13:54 7 certainly see the 8 April. I'm not sure I see  
12:13:57 8 the other. But I will accept it subject to  
12:14:01 9 check. Sure.

12:14:02 10 Q. And what I'm asking is simply a  
12:14:04 11 publication date of 8 April from an Australian or  
12:14:08 12 a New Zealand-based publication, that would come  
12:14:11 13 out on April 7th in New York, correct?

12:14:15 14 MR. KIRSCH: Objection. Lack of  
12:14:16 15 foundation.

12:14:17 16 THE WITNESS: It certainly is not at  
12:14:20 17 the same time, if that is your question.

12:14:20 18 (Exhibit Number 1139  
12:14:20 19 marked for identification.)

12:14:20 20 BY MR. BEDNAR:

12:14:23 21 Q. Okay. And by way of example, I will  
12:14:25 22 show you Exhibit 1139, which is another report  
12:14:35 23 from the Hobart Mercury, dated 8 April 2011,  
12:14:41 24 titled, Riversdale Gives Okay to Rio's Takeover  
12:14:47 25 Bid.

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12:14:47 1 And the lead of the article reads,  
12:14:51 2 "Riversdale Mining has recommended shareholders  
12:14:54 3 accept Rio Tinto's \$3.9 billion takeover bid  
12:14:58 4 after the mining giant gained just under  
12:15:02 5 50 percent of the coal miner."

12:15:06 6 Did I read that correctly?

12:15:07 7 A. Yes.

12:15:09 8 Q. And so this April 8th article in the  
12:15:12 9 Hobart Mercury is reporting on events of  
12:15:15 10 April 7, 2011. Correct?

12:15:17 11 A. Correct.

12:15:18 12 MR. KIRSCH: Objection.

12:15:20 13 BY MR. BEDNAR:

12:15:22 14 Q. Take you back to Exhibit 1138, which  
12:15:28 15 is the April 8, 2011, Hobart Mercury report,  
12:15:34 16 titled, Mining boom a boost for juniors.

12:15:47 17 So, as you sit here today, do you  
12:15:53 18 have a basis for ascertaining on what date in New  
12:15:57 19 York this report was published?

12:16:00 20 A. I would have to go back and check.

12:16:03 21 Q. Okay. If it was published on  
12:16:08 22 April 7th in New York, would you agree that any  
12:16:10 23 news contained in this report would be  
12:16:13 24 incorporated into the market on April 7th?

12:16:17 25 A. The question is what time of day it

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12:16:19 1 comes out. As I say, if this is important to  
12:16:22 2 you, Ii would have to go back and take a look and  
12:16:25 3 be ready next time we meet.

12:16:27 4 Q. And so your assertion that iron ore  
12:16:31 5 prices went up and that that news was reported on  
12:16:34 6 April 8, to the extent that you rely on this news  
12:16:37 7 report in support of that assertion, we would  
12:16:39 8 have to check what time it came out. Is that  
12:16:42 9 right?

12:16:43 10 A. Not to check what time it came out,  
12:16:47 11 but that it was reported on April 8. We would  
12:16:50 12 have to check the time between New York and  
12:16:51 13 Australia.

12:16:58 14 Q. And, if you look at Paragraph 58 of  
12:17:06 15 your report in Footnote 170, the other source  
12:17:10 16 that you cite is a Metals Bulletin article. And  
12:17:16 17 that is Exhibit 1140.

12:17:19 18 A. Yes.

12:17:19 19 (Exhibit Number 1140  
12:17:19 20 marked for identification.)

12:17:20 21 BY MR. BEDNAR:

12:17:20 22 Q. And I am pulling that up so that you  
12:17:22 23 can look at it. It is titled, "China Steel Wrap:  
12:17:29 24 Shanghai Rebar Up 3 Percent Despite Short Week."

12:17:35 25 That also has a publication date of

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12:17:38 1 8 April 2011. Right?

12:17:42 2 A. Yes.

12:17:43 3 Q. And it has a publication time of  
12:17:45 4 5:30 in the morning right under the date. Is  
12:17:47 5 that correct?

12:17:48 6 A. It does. I'm not sure what that  
12:17:52 7 time refers to where it comes out. But, yes, I  
12:17:55 8 can certainly see this, yes.

12:17:57 9 Q. Do you know where Metal Bulletin is  
12:18:00 10 published?

12:18:01 11 A. I don't, off the top of my head. I  
12:18:03 12 believe it is a Chinese publication, but I don't  
12:18:08 13 know off the top of my head.

12:18:09 14 Q. Okay. If I represent to you that  
12:18:13 15 Metal Bulletin is a London based publication --

12:18:16 16 A. Okay.

12:18:16 17 Q. -- if you were to accept that  
12:18:18 18 assumption for purposes of this question, that  
12:18:20 19 means that the time of this report would most  
12:18:24 20 likely be just after midnight on April 8th in New  
12:18:28 21 York. Correct?

12:18:30 22 A. If the time stamp refers to London  
12:18:34 23 time.

12:18:35 24 Q. Correct.

12:18:35 25 A. Yes.

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12:18:36 1 Q. And specifically you cited this  
12:18:44 2 Metal Bulletin report in support of your  
12:18:47 3 assertion that iron ore prices rose.

12:18:54 4 There are a number of prices  
12:18:56 5 recorded in this report.

12:19:00 6 Were you referring to the second  
12:19:02 7 sentence that says, "Spot iron ore price up  
12:19:06 8 3.3 percent week-on-week at \$186-187?"

12:19:13 9 A. That is the quote. But, that looks  
12:19:19 10 like the title. So, yes, that would be among  
12:19:21 11 them, yes.

12:19:21 12 Q. Okay. Do you agree the other prices  
12:19:25 13 that are referred to here, Shanghai rebar, wire  
12:19:32 14 rod, those are prices for finished steel  
12:19:36 15 products. Correct?

12:19:36 16 A. That's correct.

12:19:38 17 Q. And so, the specific week-on-week  
12:19:41 18 increase in spot iron ore, that is the only iron  
12:19:45 19 ore price that is being referred to in this  
12:19:47 20 article. Right?

12:19:48 21 A. That is correct. Although this is  
12:19:50 22 again referring to the demand shocks. This would  
12:19:53 23 technically move everything, going back to our  
12:19:56 24 earlier conversation, yes.

12:19:57 25 Q. Right. And, the increase that is

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12:20:00 1 being reported, that is a week-on-week increase,  
12:20:03 2 right?

12:20:03 3 A. Yes.

12:20:06 4 Q. Which spot price is being referred  
12:20:11 5 to here?

12:20:12 6 A. I really don't recall.

12:20:16 7 Q. Is there only one spot price in the  
12:20:20 8 iron ore market as of April of 2011?

12:20:23 9 A. I don't recall one way or the other.

12:20:25 10 Q. Do you have an understanding as to  
12:20:26 11 whether there are multiple prices for iron ore,  
12:20:30 12 depending on the particular blend of iron ore?

12:20:34 13 A. I would guess that there would be,  
12:20:35 14 yes.

12:20:36 15 Q. And that there are different spot  
12:20:39 16 prices for iron ore depending on the delivery for  
12:20:44 17 the iron ore?

12:20:45 18 A. Well, that is mechanical, yes.

12:20:47 19 Q. And, do you know in April 8, 2011,  
12:20:51 20 if there was any particular spot price that  
12:20:54 21 was -- was or was not relevant to Rio Tinto?

12:20:57 22 A. I don't recall, sorry.

12:21:04 23 MR. KIRSCH: Objection.

12:21:05 24 BY MR. BEDNAR:

12:21:05 25 Q. You say you don't recall. Is that

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12:21:06 1 something that you analyzed in the course of  
12:21:08 2 doing your work on this report?

12:21:11 3 A. I may well have seen that in the  
12:21:13 4 search for the early section of the report from  
12:21:16 5 the company. But, I really don't recall sitting  
12:21:18 6 here today.

12:21:22 7 Q. Your assertion that iron ore prices  
12:21:25 8 went up on April 8th, do you rely on any other  
12:21:28 9 source for that assertion besides the two  
12:21:30 10 articles that you cite in Footnote 170?

12:21:37 11 A. In terms of what is written here,  
12:21:39 12 no, I don't.

12:21:41 13 Q. You say in terms of what is written  
12:22:01 14 here.

12:22:02 15 Are you relying on any other source  
12:22:04 16 of information for your understanding that iron  
12:22:07 17 ore prices went up as announced on April 8, 2011?

12:22:10 18 A. Not that I recall, no.

12:22:13 19 Q. And, Paragraph 58 of your report, in  
12:23:03 20 the first sentence you state, "In addition, the  
12:23:06 21 Metal Bulletin, which publishes frequently cited  
12:23:10 22 iron ore price indices, reported on  
12:23:13 23 April 8, 2011, that iron ore spot prices upon  
12:23:17 24 which 85 percent of Rio Tinto's underlying  
12:23:19 25 earnings in 2011 relied had increased."

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12:23:24 1 What is your support for your  
12:23:27 2 assertion that 85 percent of Rio Tinto's  
12:23:29 3 underlying earnings rely on iron ore spot  
12:23:33 4 pricing?

12:23:34 5 A. Well, they come from iron ore, the  
12:23:39 6 commodity value which is its stock price.

12:23:43 7 Q. In April of 2011, did Rio Tinto's  
12:23:47 8 iron ore sales depend on the spot price --

12:23:50 9 Let me ask that a different way.

12:23:52 10 Did Rio Tinto sell at the spot price  
12:23:55 11 as of April 8, 2011?

12:23:58 12 A. I don't recall one way or the other.  
12:24:02 13 This is just a statement about the domination of  
12:24:04 14 iron ore and the earnings of the company.

12:24:11 15 Q. Well, in literal terms, this is a  
12:24:13 16 representation that 85 percent of Rio Tinto's  
12:24:17 17 underlying earnings in 2011 relied on iron ore  
12:24:20 18 spot prices.

12:24:21 19 I'm asking you what analysis did you  
12:24:23 20 do to determine that 85 percent of earnings  
12:24:26 21 relied on the spot price as opposed to a  
12:24:29 22 different iron ore price?

12:24:32 23 A. If I am understanding your question,  
12:24:34 24 all I meant there is that it relies on iron ore,  
12:24:38 25 the marginal price and spot price. That is all

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12:24:41 1 it says.

12:24:42 2 Q. So, do you agree with me that Rio  
12:24:48 3 Tinto's underlying earnings may just as well  
12:24:51 4 depend on longer term iron ore prices as opposed  
12:24:55 5 to the spot price?

12:24:57 6 A. We can -- sorry --

12:25:05 7 Q. No, I just wasn't hearing you. Go  
12:25:07 8 ahead.

12:25:07 9 A. No, I thought Mr. Kirsch was saying  
12:25:10 10 something.

12:25:10 11 It could well depend on both,  
12:25:12 12 depending on the contracts that he uses.

12:25:14 13 Q. Did you do any analysis to determine  
12:25:16 14 whether or not in April of 2011, Rio Tinto --  
12:25:23 15 whether its iron ore sales were priced on a  
12:25:26 16 quarterly or other long-term basis?

12:25:29 17 A. No. I don't recall doing that. I'm  
12:25:31 18 not sure why I would, no.

12:25:33 19 Q. Would that have been relevant to  
12:25:40 20 your assertion that 85 percent of Rio Tinto's  
12:25:43 21 underlying earnings rely on the iron ore spot  
12:25:46 22 prices?

12:25:47 23 A. Not the sense in which I mean it,  
12:25:50 24 no.

12:25:51 25 Q. The sense in which you mean it is

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12:25:53 1 that the iron ore spot price is relevant to Rio  
12:25:56 2 Tinto's earnings, rather than that the earnings  
12:25:59 3 are dependent on them?

12:26:00 4 A. Yes, the earnings are dependent on  
12:26:03 5 iron ore, these marginal price, and spot price.  
12:26:09 6 That is all this sentence is trying to say.

12:26:22 7 Q. If there was an increase in iron ore  
12:26:25 8 spot prices on April 8th, if we assume that,  
12:26:28 9 would that tell you all you need to know about  
12:26:30 10 whether or not that would affect Rio Tinto's  
12:26:32 11 underlying earnings?

12:26:34 12 A. Well, it is not a well posed  
12:26:39 13 question. I guess over what period, what do you  
12:26:41 14 think about the time path for iron ore. All of  
12:26:45 15 those would be important.

12:26:47 16 Q. Would you for instance want to know  
12:26:52 17 whether that change in spot price affected the  
12:26:57 18 long-term contracts on which Rio Tinto was  
12:27:00 19 selling iron ore?

12:27:03 20 MR. KIRSCH: Objection, vague.

12:27:05 21 THE WITNESS: Well, I'm not quite  
12:27:07 22 sure I can answer that. I think what you  
12:27:10 23 meant to ask me is, is just the knowledge of  
12:27:14 24 the spot price or the current contracts  
12:27:17 25 enough.

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12:27:17 1 The question is really more what do  
12:27:18 2 you think -- excuse me, is being signalled  
12:27:21 3 about expectations of the future marginal  
12:27:24 4 prices.

12:27:24 5 So, I wouldn't know enough to know  
12:27:28 6 the answer to the question you just asked.

12:27:30 7 BY MR. BEDNAR:

12:27:31 8 Q. Is there an iron ore futures market?

12:27:34 9 A. I believe so.

12:27:35 10 Q. Did you do any analysis of whether  
12:27:38 11 iron ore futures prices had changed on April 8th?

12:27:44 12 A. I don't recall doing that, no.

12:27:47 13 Q. If Rio Tinto price contracts on a  
12:27:50 14 long-term basis, would iron ore futures price be  
12:27:54 15 any more or less relevant than spot prices to Rio  
12:27:57 16 Tinto's earnings expectations?

12:28:00 17 A. Based on the structure of contracts,  
12:28:03 18 I'm only accepting it for the sake of argument,  
12:28:06 19 the way you have described the contracts.

12:28:08 20 The fact that somebody was on a  
12:28:10 21 long-term contract doesn't mean that -- I don't  
12:28:13 22 know enough of the facts of the contracts to  
12:28:15 23 answer the question.

12:28:17 24 Q. Sure. The structure of Rio Tinto's  
12:28:19 25 iron ore contracts wasn't something that you

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12:28:21 1 considered in preparing your report. Right?

12:28:22 2 A. No. I can't imagine why I would,  
12:28:25 3 but no would be the simple answer.

12:28:26 4 Q. Okay. Because it wasn't relevant to  
12:28:29 5 your assertion that 85 percent of underlying  
12:28:32 6 earnings relies on the spot price, right?

12:28:35 7 A. In the sense of what I meant it, no,  
12:28:37 8 it is not.

12:28:38 9 Q. Okay. And to be clear, you meant it  
12:28:39 10 in a different sense from what you wrote it?

12:28:41 11 A. No.

12:28:42 12 MR. KIRSCH: Objection, lacks  
12:28:43 13 foundation.

12:28:43 14 THE WITNESS: I read it the way that  
12:28:45 15 I'm saying it to you now. You read it  
12:28:50 16 differently.

12:29:30 17 MR. KIRSCH: Tom, while you are  
12:29:31 18 pausing, it is about 12:30. Let me inquire  
12:29:34 19 when we are all going to do lunch today and  
12:29:38 20 how long that would be.

12:29:41 21 MR. BEDNAR: I'm coming towards the  
12:29:42 22 end of a line of questioning and then we can  
12:29:44 23 go off the record and discuss how long you  
12:29:45 24 want to take. Does that make sense?

12:29:48 25 THE WITNESS: Sure. Works for me.

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12:29:49 1 MR. KIRSCH: Okay, thank you.

12:29:49 2 (Whereupon, previously marked  
12:29:49 3 Exhibit 14, first referral.)

12:29:49 4 BY MR. BEDNAR:

12:29:58 5 Q. Doctor, I'm going to pull up Defense  
12:30:02 6 Exhibit 14. That is Rio Tinto's 2011 Annual  
12:30:08 7 Report. And I will take you to Page 176 of the  
12:30:27 8 PDF. For you, that will be Page 174 of the  
12:30:30 9 report itself.

12:30:37 10 This is the notes to the 2011  
12:30:39 11 financial statements.

12:30:44 12 A. Okay.

12:30:45 13 Q. Note 31 is titled Financial Risk  
12:30:48 14 Management. If you look at the second paragraph,  
12:31:06 15 the second sentence says, "In the long-term,  
12:31:09 16 natural hedges operate in a number of ways to  
12:31:12 17 help protect and save lost earnings and cash  
12:31:18 18 flow."

12:31:18 19 Do you see that?

12:31:19 20 A. Yes.

12:31:22 21 Q. The -- if you look at the next  
12:31:29 22 paragraph, if you look at the second sentence,  
12:31:58 23 "The relationship between commodity prices and  
12:32:00 24 the currencies of most of the countries in which  
12:32:03 25 the group operates provides further natural

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12:32:05 1 protection in the long-term."

12:32:07 2 Did I read that correctly?

12:32:08 3 A. Yes.

12:32:09 4 Q. The last sentence of that paragraph  
12:32:19 5 says, "These natural hedges significantly reduce  
12:32:22 6 the necessity for using derivatives or other  
12:32:25 7 forms of synthetic hedging. Such hedging is  
12:32:28 8 therefore undertaken to a strictly limited degree  
12:32:31 9 as described below."

12:32:33 10 Have I read that correctly?

12:32:34 11 A. You have.

12:32:36 12 Q. Did you consider in preparing your  
12:32:41 13 report at all the impact of Rio Tinto's natural  
12:32:45 14 hedges on the extent to which the spot price of  
12:32:48 15 iron ore would impact its earnings?

12:32:53 16 A. I did not, no.

12:32:59 17 Q. Would you agree that if Rio Tinto  
12:33:01 18 has natural hedges, that as Rio Tinto says  
12:33:06 19 operates in a number of ways to help protect and  
12:33:09 20 stabilize earnings and cash flow, that the impact  
12:33:13 21 of a change in spot prices on one day on Rio  
12:33:19 22 Tinto's underlying earnings may be diminished?

12:33:23 23 A. I don't know that you could conclude  
12:33:25 24 that. It would depend on particular currencies.  
12:33:29 25 And, so they were giving you examples. And they

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12:33:34 1 are talking over the long-term, not at a point in  
12:33:37 2 time. So, I don't think you could know, one way  
12:33:40 3 or the other, from that paragraph.

12:33:41 4 Q. You say, to determine the effect of  
12:33:42 5 a change on spot prices for any commodity on Rio  
12:33:46 6 Tinto's underlying earnings. Would you want to  
12:33:50 7 consider the nature of those hedges?

12:33:53 8 A. It is not a well posed question.  
12:33:57 9 Earnings when, over what period, for what  
12:34:00 10 commodity price assumption?

12:34:02 11 It is just sort of unrelated to the  
12:34:04 12 statement in my report. But, I'm happy to  
12:34:07 13 answer.

12:34:07 14 Q. Well, the statement in your report  
12:34:09 15 is that Rio Tinto's underlying earnings rely on  
12:34:13 16 iron ore spot prices.

12:34:14 17 And I'm trying to ascertain whether  
12:34:16 18 you consider the presence of natural hedges to be  
12:34:20 19 at all relevant to that assertion in your report?

12:34:23 20 A. I didn't consider it. Nothing in  
12:34:29 21 this would suggest that it would be terribly  
12:34:31 22 important over any particular interval without a  
12:34:33 23 lot of other assumptions.

12:34:34 24 So, I don't know how one could. I'm  
12:34:37 25 not sure what you are asking me to do. But, I

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12:34:40 1 didn't. That is simple.

12:34:43 2 MR. BEDNAR: We can go ahead and go  
12:34:45 3 off the record and I will ask how long you  
12:34:47 4 will want.

12:34:49 5 MR. KIRSCH: Okay, thank you.

12:34:51 6 THE VIDEOGRAPHER: All right. We  
12:34:52 7 are going off the record. The time is 12:34  
12:34:55 8 eastern time.

12:34:55 9 (Recess taken -- 12:34 p.m.)

13:10:07 10 (After recess -- 1:11 p.m.)

13:10:07 11 THE VIDEOGRAPHER: We are going back  
13:11:23 12 on the record. The time is 1:11 eastern.

13:11:23 13 (Whereupon, previously marked

13:11:23 14 Exhibit 212, first referral.)

13:11:23 15 BY MR. BEDNAR:

13:11:28 16 Q. Dr. Hubbard, I wanted to put in  
13:11:31 17 front of you a copy of Dr. Metz's opening report,  
13:11:37 18 which is Exhibit 212, Defense Exhibit 212.

13:11:44 19 A. Okay.

13:11:44 20 Q. And, specifically I will take you to  
13:11:47 21 the second page of the report, under the Summary  
13:11:51 22 of Opinions, Paragraph 16.

13:11:55 23 So, one of Dr. Metz's opinions is,  
13:11:58 24 "After analyzing the market's reaction to Rio  
13:12:01 25 Tinto's acquisition of the Riversdale Mining

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13:12:04 1 assets on April 8, 2011, I conclude that this  
13:12:07 2 acquisition was accretive.

13:12:10 3 "The market believed that these  
13:12:12 4 assets had upside for Rio Tinto and this was  
13:12:14 5 reflected in a statistically significant positive  
13:12:18 6 excess return in the ADR price that day."

13:12:20 7 Did I read that correctly?

13:12:22 8 A. You did.

13:12:23 9 Q. So, this morning you said several  
13:12:27 10 times that you found the issue of April 8th to be  
13:12:35 11 irrelevant.

13:12:36 12 Is this specifically the opinion  
13:12:38 13 that you find to be irrelevant?

13:12:42 14 A. This opinion I just disagree with.

13:12:45 15 I think the question he is asking to  
13:12:49 16 be irrelevant.

13:12:49 17 The question I think in the case is  
13:12:51 18 whether an impairment taken at a later date,  
13:12:55 19 January of 2013, whether that has an effect on  
13:13:00 20 the stock price.

13:13:00 21 Whether the original investment was  
13:13:02 22 accretive, break even, value destroying. Is  
13:13:08 23 literally unrelated to that question.

13:13:10 24 Now, I disagree with everything in  
13:13:13 25 16, but what I was saying this morning is I don't

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13:13:17 1 see why you need it. It is literally a waste of  
13:13:20 2 time from an economic perspective. Maybe for the  
13:13:28 3 lawyers, there is some legal issue there.

13:13:28 4 But, there is zero economic  
13:13:30 5 relevance.

13:13:30 6 Q. Zero economic relevance to what?

13:13:33 7 A. The question I think that is before  
13:13:34 8 the court which is about the effect of the  
13:13:36 9 impairment on Rio Tinto.

13:13:37 10 Had the original acquisition been  
13:13:39 11 accretive, had it exactly broken even, had it  
13:13:42 12 been value destroying? Knowing the answer to  
13:13:46 13 which one of those it was, doesn't inform the  
13:13:48 14 main question.

13:13:49 15 So I don't really see why this is  
13:13:52 16 interesting at all.

13:13:54 17 But, yes, I still disagree with  
13:13:56 18 everything in 16 on more technical grounds.

13:13:59 19 But I am baffled from an economic  
13:14:03 20 perspective on why Dr. Metz thinks this is  
13:14:07 21 important.

13:14:07 22 Q. What is the basis of your  
13:14:09 23 understanding of what the relevant issues in this  
13:14:11 24 case are?

13:14:14 25 MR. KIRSCH: You mean from an

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13:14:15 1 economic perspective?

13:14:24 2 BY MR. BEDNAR:

13:14:24 3 Q. What is the basis --

13:14:24 4 A. Sorry.

13:14:24 5 Q. Yes, I am rephrasing the question.

13:14:26 6 What is the basis for your understanding of what  
13:14:28 7 the relevant economic issues in this case are?

13:14:35 8 A. In the complaint, the SEC alleges  
13:14:37 9 some action.

13:14:38 10 For example, the impairment  
13:14:41 11 affecting the stock price. Getting at that  
13:14:44 12 question, which is an economic question and the  
13:14:46 13 court will decide it, or jury wherever this goes,  
13:14:49 14 does not require knowledge of whether the  
13:14:52 15 original investment was accretive or breaks even  
13:14:56 16 or is value destroying.

13:14:58 17 It is literally not related. And,  
13:15:02 18 unfortunately, Dr. Metz trips up himself in a lot  
13:15:08 19 of ways in that analysis, when he needn't have  
13:15:11 20 done it at all.

13:15:13 21 From an economic perspective, I  
13:15:15 22 don't think there is any disagreement here.

13:15:17 23 Q. But your opinion is not --

13:15:18 24 But, you are not expressing an  
13:15:20 25 opinion on what is legally relevant in this case,

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13:15:23 1 are you?

13:15:24 2 A. I can't be. I'm not a lawyer. But  
13:15:27 3 I would be astonished if something that is  
13:15:32 4 economically irrelevant suddenly has a legal  
13:15:35 5 value. But I would have to defer to the  
13:15:37 6 attorneys on that.

13:15:38 7 Q. Well, ultimately, you have to defer  
13:15:39 8 to the judge on what is relevant in this case,  
13:15:41 9 right?

13:15:42 10 A. Well, of course. I just don't think  
13:15:44 11 it is from an economic perspective. He or she  
13:15:47 12 will decide.

13:15:53 13 Q. And, so it is your contention of  
13:16:02 14 Dr. Metz's opinions with respect to April 8,  
13:16:05 15 2011, are irrelevant to the issue of the impact  
13:16:07 16 of the 2013 impairment on Rio Tinto, correct?

13:16:12 17 A. Partly --

13:16:15 18 MR. KIRSCH: Objection.

13:16:17 19 THE WITNESS: They are both  
13:16:18 20 incorrect and irrelevant.

13:16:20 21 They are irrelevant because he  
13:16:22 22 mentions the incorrect relevance.

13:16:27 23 BY MR. BEDNAR:

13:16:27 24 Q. So, in terms of assessing whether  
13:16:29 25 there is an impact from the 2013 impairment of

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13:16:39 1 RTCM on Rio Tinto, is the only appropriate way to  
13:16:44 2 do that through an event study that is focused on  
13:16:49 3 January 17th of 2013?

13:16:50 4 MR. KIRSCH: Objection. Tom, when  
13:16:52 5 you refer to, quote, on Rio Tinto, unquote,  
13:16:55 6 are you talking about share price? Are you  
13:16:57 7 talking about something else like cash flow?  
13:17:00 8 Can you just clarify what you mean for us.

13:17:03 9 BY MR. BEDNAR:

13:17:03 10 Q. Sure. With respect to the share  
13:17:05 11 price of Rio Tinto, is it your conclusion that  
13:17:08 12 the only way to assess the impact on the share  
13:17:11 13 price of Rio Tinto is by focusing on January 17,  
13:17:17 14 2013?

13:17:18 15 A. We certainly would want to focus on  
13:17:21 16 January 17th. You may need, as I do, I think  
13:17:25 17 Dr. Metz does, looking at other information as  
13:17:28 18 well, but it really is the share price that is at  
13:17:32 19 the heart of economic issues.

13:17:33 20 And doing that analysis requires no  
13:17:36 21 information about April 8th whatsoever. Nothing  
13:17:40 22 in that analysis, whether it is the way he did it  
13:17:44 23 or the way I did it, requires that knowledge.  
13:17:47 24 That is why it is irrelevant.

13:18:10 25 Q. And conducting your event study, did

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13:18:12 1 you do any analysis of the effect of oil prices  
13:18:18 2 on Rio Tinto? Specifically Rio Tinto stock?

13:18:25 3 A. I'm not sure what you mean.  
13:18:31 4 Eventually you would have a market model and an  
13:18:33 5 industry index. Are you asking did I include the  
13:18:37 6 price of oil as another variable? No I didn't.  
13:18:43 7 So, I'm not sure what you asking.

13:18:43 8 Q. Did you do anything to evaluate  
13:18:45 9 whether the price of oil has an effect on Rio  
13:18:47 10 Tinto's stock prices?

13:18:49 11 A. If I am understanding your question,  
13:18:53 12 no. I am not even sure exactly how you would do  
13:18:58 13 that, with both correlation and covariance  
13:19:03 14 elements. But, I don't know, you will educate me  
13:19:05 15 as we go through your questions.

13:19:07 16 Q. And what are you referring to when  
13:19:09 17 you refer to correlation and covariance?

13:19:11 18 A. I'm not sure what your question is.  
13:19:13 19 Are you referring to simply are they correlated  
13:19:16 20 or are you referring to something more akin to a  
13:19:18 21 beta of the stock, which is a covariance term.

13:19:21 22 So, I'm not sure what you are even  
13:19:24 23 asking.

13:19:25 24 Q. Did you do any analysis with respect  
13:19:27 25 to any relationship between Rio Tinto stock and

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13:19:29 1 oil prices?

13:19:30 2 A. Not that I recall. I'm not sure why  
13:19:36 3 I would in January 17th from that study. But, no  
13:19:42 4 would be a quick answer.

13:19:45 5 Q. With respect to any date did you do  
13:19:46 6 any analysis of any relationship between oil  
13:19:49 7 prices and Rio Tinto stock price?

13:19:50 8 A. I don't recall doing that, no.

13:19:53 9 Q. And if you had done so, would that  
13:19:57 10 be in the backup materials that were produced  
13:19:59 11 with your report?

13:20:01 12 A. It definitely should be, yes.

13:20:02 13 Q. Did you do any analysis with respect  
13:20:06 14 to any time period of the -- of any relationship  
13:20:10 15 between oil prices and stock price returns for  
13:20:14 16 any of the industry indices that are discussed in  
13:20:19 17 your expert report?

13:20:22 18 A. So, is your question did I look at  
13:20:26 19 whether the indexes are correlated with the price  
13:20:28 20 of oil? Whether the components? I'm not sure  
13:20:31 21 what you are asking me.

13:20:33 22 Q. Sure, I will take it one step at a  
13:20:35 23 time.

13:20:35 24 Did you do any analysis of any  
13:20:37 25 relationship between oil prices and the returns

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13:20:40 1 on any of the industry indices at the index  
13:20:44 2 level?

13:20:46 3 A. I am not sure why I would. To do so  
13:20:52 4 would be very complicated. You are making it  
13:20:54 5 sound like it is by variable. It certainly  
13:20:55 6 wouldn't be. But, no, I didn't do that.

13:20:56 7 Q. Okay. And so I take that to also  
13:20:59 8 mean you didn't do anything to analyze  
13:21:01 9 relationships between oil prices and any of the  
13:21:03 10 specific constituents in any of the industry  
13:21:06 11 indices that we have been talking about in this  
13:21:08 12 case, right?

13:21:08 13 A. That's correct.

13:21:09 14 Q. In preparing your report did you  
13:21:31 15 check whether there was any news related to  
13:21:34 16 commodities' prices other than precious metals  
13:21:38 17 and potentially iron ore, on April 8, 2011?

13:21:46 18 A. I have all the news stories, which  
13:21:51 19 you maybe mentioned, and I didn't necessarily  
13:21:54 20 focus on that. I'm not sure why I would. But I  
13:21:57 21 have all of the news articles on this.

13:21:57 22 (Exhibit Number 1258  
13:21:57 23 marked for identification.)

13:22:10 24 BY MR. BEDNAR:

13:22:10 25 Q. I'm going to pull up Exhibit 1258.

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13:22:18 1 Exhibit 1258 is a screenshot from the website for  
13:22:26 2 the U.S. Energy Information Administration.

13:22:31 3 And under the header, you see that  
13:22:34 4 it reports the prices for Europe Brent. Do you  
13:22:40 5 see that?

13:22:41 6 A. I don't see anything on the screen  
13:22:43 7 other than your face.

13:22:44 8 Q. Oh, I'm so sorry, Doctor. I'm  
13:22:45 9 sorry. There is a button I need to push and I  
13:22:48 10 didn't push it, so I'm not helping you very much.

13:22:51 11 A. Okay. I've got another copy if --

13:22:51 12 Q. Yes, everyone should have it.

13:22:56 13 A. Got it.

13:22:56 14 Q. That exhibit Plaintiff's 1258, do  
13:22:59 15 you agree that appears to be a screenshot from  
13:23:01 16 the U.S. Energy Information Administration's  
13:23:04 17 website?

13:23:04 18 A. I agree that that is what it looks  
13:23:06 19 like.

13:23:07 20 Q. Listing spot prices for Europe  
13:23:12 21 Brent?

13:23:12 22 A. That is what it says, yes.

13:23:14 23 Q. And Brent is a common type of crude  
13:23:18 24 oil, right?

13:23:18 25 A. Yes.

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13:23:19 1 Q. Take you to Page 19 of the PDF.  
13:23:24 2 And you see a listing for prices by  
13:23:30 3 week in 2011.

13:23:32 4 In the middle of the page, do you  
13:23:34 5 see prices for April 4th to April 8th, that week  
13:23:39 6 of 2011?

13:23:44 7 Do you see that line on the page?

13:23:45 8 A. I do. It starts at 120.07.

13:23:48 9 Q. And then at the end of the week  
13:23:50 10 April 8th, it is at 126.30. Is that right?

13:23:53 11 A. That's correct.

13:23:54 12 Q. The day before, April 7th, spot  
13:23:58 13 prices for Brent crude were at 122.90; is that  
13:24:05 14 right?

13:24:05 15 A. Yes.

13:24:05 16 Q. So, fair to say that there is a jump  
13:24:09 17 of \$3.40 between April 7th and April 8th?

13:24:15 18 A. It is fair to say the price changed,  
13:24:18 19 yes.

13:24:18 20 Q. Would that type of news be negative,  
13:24:23 21 positive, or neutral for Rio Tinto?

13:24:29 22 A. Well --

13:24:30 23 MR. KIRSCH: Objection.

13:24:30 24 THE WITNESS: I'm not sure what you  
13:24:33 25 mean. Are you saying that for the company's

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13:24:36 1 currently -- the stock price?

13:24:39 2 BY MR. BEDNAR:

13:24:39 3 Q. Yes. For the company's -- first,  
13:24:42 4 for the company's earnings, would changes in fuel  
13:24:45 5 prices be positive, negative, or neutral for  
13:24:48 6 earnings?

13:24:49 7 A. They should be positive. For stock  
13:24:54 8 prices, who knows. It is really about the  
13:24:57 9 present value of all of the future and oil prices  
13:25:01 10 are volatile.

13:25:02 11 I'm not sure what to make of this.  
13:25:05 12 I didn't review it.

13:25:06 13 Q. Why do you say that a change in spot  
13:25:08 14 oil prices would be positive for earnings?

13:25:12 15 Do you mean that it would increase  
13:25:14 16 earnings or decrease earnings?

13:25:15 17 A. I don't -- I think that -- don't  
13:25:18 18 they -- well, I should take a look. Let me look  
13:25:23 19 here. This is not something that I considered,  
13:25:25 20 so --

13:25:30 21 Q. Okay. Let me take you to --

13:25:32 22 A. I didn't -- go ahead. Sorry.

13:25:35 23 Q. I'm sorry. What were you going to  
13:25:39 24 say, Doctor? I didn't mean to interrupt.

13:25:40 25 A. Well, I was just looking for their

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13:25:41 1 energy group to see what their exposure was.

13:25:44 2 But, it wasn't something I did.

13:25:44 3 Q. Okay. And were you looking at the  
13:25:47 4 energy group to see if Rio Tinto sells oil?

13:25:50 5 A. Yes.

13:25:51 6 Q. Okay. And you are not sure whether  
13:25:57 7 or not Rio Tinto sold oil among its products in  
13:26:00 8 2011?

13:26:01 9 A. I don't recall.

13:26:05 10 Q. Okay. I'm showing you defense  
13:26:07 11 Exhibit 14. This is the Rio Tinto 2011 annual  
13:26:10 12 report.

13:26:12 13 Taking you to page 14 of the PDF,  
13:26:15 14 which is Page 12 of the report. This is  
13:26:23 15 Section 4, Disclosure of Sustainable Development  
13:26:28 16 Risks. And in the first box, under Sustainable  
13:26:32 17 Development Risks, the first sentence says, "Rio  
13:26:34 18 Tinto's operations are energy intensive and  
13:26:37 19 depend heavily on fossil fuels."

13:26:40 20 Do you see that?

13:26:41 21 A. Yes.

13:26:42 22 Q. And as far as your research showed  
13:26:46 23 in this case would you agree that as a mining  
13:26:50 24 company Rio Tinto was heavily dependent on fossil  
13:26:52 25 fuels for its operations?

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13:26:54 1 A. Certainly, it is a very energy  
13:26:57 2 intensive activity, yes.

13:26:58 3 Q. I will take you then to Page 32 of  
13:27:00 4 the report, which is Page 34 of the PDF. On the  
13:27:07 5 right-hand side of the page, at the top of the  
13:27:10 6 page, there is a section for energy, other cash  
13:27:14 7 costs and exploration.

13:27:16 8 And in the first sentence Rio Tinto  
13:27:18 9 states that, "Higher energy costs across the  
13:27:20 10 group reduced underlying earnings by \$249 million  
13:27:25 11 U.S. compared with 2010."

13:27:27 12 Did I read that correctly?

13:27:29 13 A. Yes.

13:27:31 14 Q. Does that affect your opinion one  
13:27:33 15 way or the other on whether oil prices would tend  
13:27:37 16 to be positive or negative for Rio Tinto's  
13:27:39 17 earnings?

13:27:41 18 A. To the extent that it is consumer,  
13:27:44 19 an only consumer, obviously it will be negative.

13:27:44 20 (Exhibit Number 1257  
13:27:44 21 marked for identification.)

13:28:00 22 BY MR. BEDNAR:

13:28:00 23 Q. I'm going to take you to  
13:28:04 24 Exhibit 1257, which is the report by  
13:28:11 25 PricewaterhouseCoopers titled Mine, The Growing

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13:28:17 1 Disconnect. Do you see that?

13:28:17 2 A. Yes.

13:28:18 3 Q. And the subheading on that first  
13:28:20 4 page says A Review of Global Trends in the Mining  
13:28:24 5 Industry, 2012.

13:28:28 6 I take you to Page 22 of the  
13:28:30 7 report -- I'm sorry, if you will indulge me for  
13:28:46 8 one moment. I have the wrong page.

13:28:58 9 If you will indulge me for just one  
13:29:01 10 moment, I want to make sure that I have you on  
13:29:03 11 the right page before I ask you a question about  
13:29:05 12 the exhibit.

13:29:06 13 A. Okay.

13:29:17 14 Q. I'm actually at Page 28 of the  
13:29:19 15 report. There is a table listing different  
13:29:28 16 commodity prices in the upper right of that page.  
13:29:31 17 Do you see that?

13:29:32 18 A. Yes.

13:29:37 19 Q. And underneath the table PwC writes,  
13:29:42 20 "Mining activities are energy intensive in  
13:29:44 21 nature. Fuel and electricity are key costs.  
13:29:48 22 Prices for Brent crude oil on which fuel prices  
13:29:51 23 are highly related were, on average, 39 percent  
13:29:54 24 higher in 2011 than in 2010."

13:29:57 25 Did I read that correctly?

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13:29:58 1 A. You did.

13:29:59 2 Q. Do you have any basis for disputing  
13:30:01 3 PwC's assertion that Brent crude oil prices were  
13:30:04 4 higher in 2011 than in 2010?

13:30:08 5 A. No, none whatsoever.

13:30:10 6 Q. And so, with respect to oil prices,  
13:30:22 7 when it comes to industry indices, let's start  
13:30:26 8 first with the S&P Metals and Mining Index.

13:30:29 9 Would you expect oil prices to have  
13:30:33 10 different effect on stock prices for mining  
13:30:38 11 companies that don't sell oil versus those that  
13:30:42 12 do?

13:30:44 13 A. Well, it certainly depends on the  
13:30:47 14 mix, but if you sell oil, obviously you are a  
13:30:50 15 beneficiary. If you are only an energy user, you  
13:30:55 16 are, all else equal, a loser.

13:30:56 17 Although I would remind you that  
13:30:59 18 areas of high oil prices could be areas of  
13:31:01 19 demand. So, it is good news elsewhere.

13:31:03 20 So, again getting back to the stocks  
13:31:09 21 argument, I don't know where you are going with  
13:31:11 22 this.

13:31:11 23 Q. Are there any companies in the S&P  
13:31:17 24 Metals Mining Index in 2011 that were oil  
13:31:19 25 producers?

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13:31:20 1 A. I can't recall one way or the other.

13:31:26 2 Q. What about the HSBC Mining Index,  
13:31:29 3 were there any other companies with oil  
13:31:31 4 operations?

13:31:32 5 A. I don't recall.

13:31:37 6 Q. You don't recall or is that  
13:31:39 7 something that you checked for?

13:31:41 8 A. I would have looked at operations of  
13:31:43 9 key components. But, I don't recall sitting here  
13:31:45 10 today.

13:31:46 11 Q. Okay. So, do you recall whether in  
13:31:48 12 2011 the BHP Billiton had significant oil  
13:31:54 13 operations?

13:31:55 14 A. I think we covered that in my  
13:31:59 15 previous answer. No, I don't recall.

13:32:27 16 Q. I'm going to put that exhibit back  
13:32:31 17 up. Exhibit 1257. And take you to Page 5.

13:32:39 18 To the left of the table at the top  
13:32:41 19 of Page 5, PwC writes, "Copper stands out as an  
13:32:47 20 exception to this disconnect. The HSBC Global  
13:32:52 21 Mining Index has generally tracked copper  
13:32:54 22 prices."

13:32:54 23 Do you see that?

13:32:56 24 A. I see that.

13:32:58 25 Q. And PwC goes on to observe that,

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13:33:01 1 "Looking back since 2000, even though the HSBC  
13:33:05 2 Global Mining Index includes miners of a  
13:33:06 3 multitude of different products, the index and  
13:33:09 4 copper prices have generally moved in sync."

13:33:15 5 A. I see the words on the page, if that  
13:33:17 6 is what you are asking.

13:33:18 7 Q. So, it is your opinion that iron ore  
13:33:28 8 is the most important commodity for Rio Tinto.  
13:33:31 9 Right?

13:33:34 10 A. Yes. You can't infer necessarily  
13:33:39 11 what PwC is saying from the picture they drew.

13:33:42 12 My guess is there is a strong  
13:33:45 13 positive correlation between the winning speed at  
13:33:47 14 the Indy 500 and GDP, but I doubt you want to  
13:33:53 15 call it causation.

13:33:57 16 Q. Well, PwC doesn't observe any  
13:34:00 17 correlation between iron ore prices and the HSBC  
13:34:05 18 Mining Index, correct?

13:34:07 19 A. PwC doesn't talk about it. I can't  
13:34:07 20 be in the head of the author of the study.

13:34:09 21 Q. Let me take that off the page for  
13:34:14 22 now.

13:34:15 23 A couple of minutes ago,  
13:34:18 24 Dr. Hubbard, you were making some points about  
13:34:22 25 economic materiality in the context of the effect

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13:34:29 1 of the 2013 impairment of RTCM on Rio Tinto.

13:34:38 2 Can you define economic materiality  
13:34:44 3 as you use that term in your report?

13:34:45 4 A. Sure. I don't recall saying that a  
13:34:49 5 few minutes ago. I can certainly define it right  
13:34:52 6 now.

13:34:53 7 From an economic perspective, I  
13:34:55 8 can't speak for the law, material would mean in  
13:34:57 9 the securities context something that a  
13:35:00 10 reasonable investor would want to know that would  
13:35:05 11 be important in changing the price at which that  
13:35:08 12 investor would trade a security.

13:35:11 13 So, to economists, materiality is,  
13:35:14 14 in a securities context, is in the price of the  
13:35:17 15 security. So, that is why there is an emphasis  
13:35:19 16 on statistically significant price changes,  
13:35:22 17 things like event studies. And it follows from  
13:35:25 18 that definition of economically material to an  
13:35:28 19 investor.

13:35:29 20 I can't speak if that is the law,  
13:35:31 21 but to an economist, that's what it would mean,  
13:35:34 22 with materiality.

13:35:35 23 Q. And within economics are stock  
13:35:38 24 prices the only way of thinking of economic  
13:35:40 25 materiality?

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13:35:41 1 A. It depends what you are trying to  
13:35:43 2 do. If your allegation, like I think yours was,  
13:35:47 3 that the impairment affected stockholders, then,  
13:35:50 4 yes. I think you would want to look at stock  
13:35:53 5 prices.

13:35:53 6 Q. Is that the only way to assess the  
13:35:55 7 impact of an event in terms of economic  
13:35:59 8 materiality?

13:36:00 9 A. In this case, yes, because the point  
13:36:03 10 is to ask whether a reasonable investor, had they  
13:36:07 11 known something you say they should have known,  
13:36:10 12 would have paid a different price.

13:36:11 13 So, yes, it is about the stock  
13:36:14 14 price. There may be other legal implications. I  
13:36:17 15 can't speak to those.

13:36:17 16 But from an economic perspective  
13:36:19 17 that is it.

13:36:41 18 THE WITNESS: I apologize, somebody  
13:36:45 19 appears to be running a mining company on my  
13:36:46 20 sidewalk. So, I hope it is not affecting my  
13:36:56 21 sound.

13:36:56 22 MR. BEDNAR: No, I can't hear that.

13:36:56 23 THE WITNESS: Okay. Good.

13:36:57 24 MR. BEDNAR: I have all sorts of  
13:36:59 25 questions about that mining company, but I

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13:37:02 1 won't ask you them.

13:37:03 2 BY MR. BEDNAR:

13:37:03 3 Q. So, the context of what you were  
13:37:15 4 just saying, are you saying that -- I just want  
13:37:17 5 to make sure I understand you.

13:37:18 6 Are you saying that investors only  
13:37:20 7 buy and sell based on the current stock price?

13:37:23 8 A. I'm not sure what you are asking.  
13:37:29 9 The question --

13:37:30 10 The concept of economic materiality  
13:37:33 11 would be am I getting information that would  
13:37:38 12 change my willingness to do a transaction at this  
13:37:45 13 price, buys, sell, hold.

13:37:47 14 You are always doing something.  
13:37:48 15 Even if you are holding, you are not selling.  
13:37:48 16 You are not buying.

13:37:51 17 So, would that information have  
13:37:52 18 changed a reasonable investor's decision? If the  
13:37:55 19 answer to that is no, then it is not material,  
13:37:58 20 from an economic perspective.

13:38:00 21 Q. Okay. And an individual investor's  
13:38:02 22 decision may be based on other factors besides  
13:38:04 23 the current price of the stock, right?

13:38:06 24 A. I don't think that is the standard,  
13:38:08 25 at least for an economist view of materiality.

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13:38:13 1 If you like buying companies that start with R,  
13:38:15 2 that is your perspective.

13:38:17 3 But I don't think that is what  
13:38:18 4 securities laws is about, right, from an  
13:38:20 5 economics perspective.

13:38:22 6 The question is would a reasonable  
13:38:24 7 investor with that information have changed the  
13:38:26 8 price he or she was willing to pay.

13:38:28 9 Q. I'm taking you back to the issue of  
13:38:39 10 industry indices. We started to discuss this a  
13:38:43 11 little bit in the morning. I think that one of  
13:38:45 12 your -- one of your opinions is that if one were  
13:38:51 13 to do an event study in this case, for any date,  
13:38:56 14 that the S&P Metals and Mining Index is not a  
13:39:00 15 proper index because it doesn't have certain  
13:39:03 16 companies that are comparable to Rio Tinto,  
13:39:06 17 right?

13:39:08 18 A. I don't believe it is the best index  
13:39:11 19 that could be used. I don't believe it would be  
13:39:13 20 appropriate, no.

13:39:14 21 It doesn't matter for some of the  
13:39:18 22 event studies, but I do agree with that.

13:39:20 23 Q. Okay. Is there a best industry  
13:39:24 24 index?

13:39:29 25 MR. KIRSCH: Could you define that,

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13:39:32 1 Tom?

13:39:32 2 BY MR. BEDNAR:

13:39:33 3 Q. For an event study -- an equity  
13:39:33 4 event study with Rio Tinto, is there a best  
13:39:35 5 industry index?

13:39:36 6 A. Well, your purpose in looking at an  
13:39:38 7 industry index goes back to what we were talking  
13:39:40 8 about this morning, is finding and defining the  
13:39:46 9 industry in a set that is most comparable to Rio  
13:39:49 10 Tinto. And we had a disagreement this morning  
13:39:52 11 about what Dr. Metz and I think that is.

13:39:54 12 So, I prefer my indices to his.

13:40:02 13 Q. Of the two indices that you used in  
13:40:05 14 your analysis, the Eight Firm Index and the HSBC  
13:40:09 15 Mining Index, do you have an opinion as to  
13:40:10 16 whether one or the other of those is better?

13:40:14 17 A. Well, the company looked at the HSBC  
13:40:17 18 index, and I think it is entirely appropriate.  
13:40:20 19 The H8, either the way I did it or following  
13:40:24 20 Dr. Metz's critique, just look at the firms that  
13:40:26 21 are in every year which is I think is in H7.

13:40:30 22 Any of those strike me as relevant,  
13:40:32 23 and important. I don't know that they get  
13:40:35 24 different answers, typically, but they strike me  
13:40:37 25 as reasonable.

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13:40:38 1 Q. And so you don't have an opinion as  
13:40:43 2 to whether the HSBC or the Eight Firm Index is  
13:40:49 3 better than the other?

13:40:51 4 A. If I take the HSBC, the index, I use  
13:40:56 5 the H8 as a check.

13:40:57 6 And as I told you this morning, I  
13:40:59 7 did a number of other checks, too, of the  
13:41:02 8 indices, but they all pretty much point in the  
13:41:04 9 same direction.

13:41:05 10 The difference is with respect to  
13:41:10 11 S&P Metal.

13:41:17 12 Q. And, I am -- I didn't hear the first  
13:41:20 13 part of your answer, and it is not clear to me  
13:41:22 14 from the record.

13:41:23 15 Did you say --

13:41:25 16 A. The HSBC index is what I had talked  
13:41:27 17 about first. The H8 is corroborating. And as we  
13:41:31 18 talked about this morning, I did a number of  
13:41:33 19 other corroborating exercises, but they all more  
13:41:35 20 or less give you the same answer.

13:41:38 21 Q. Okay. Did you choose the HSBC  
13:41:41 22 Mining Index on your own or because it was listed  
13:41:44 23 in Rio Tinto's annual reports?

13:41:47 24 A. Well, no. I mean since I have to  
13:41:50 25 ultimately make a decision, but when I saw Rio

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13:41:53 1 Tinto's use of it and comparators, I was totally  
13:41:58 2 fine with that. I think it is a reasonable  
13:42:00 3 index. It included the companies that I thought  
13:42:03 4 were most important.

13:42:04 5 And I didn't see other easily  
13:42:05 6 available indices ahead. So, I constructed  
13:42:08 7 others as back up, if you will, but I don't  
13:42:12 8 really think it is.

13:42:17 9 Q. So, had you already thought of the  
13:42:20 10 HSBC Mining Index before you saw it in Rio  
13:42:22 11 Tinto's reports?

13:42:26 12 A. You mean do I wake up at night  
13:42:31 13 thinking of the HSBC Mining Index?

13:42:33 14 Q. No. When you said about conducting  
13:42:35 15 an event study in this case, did it occur to you  
13:42:37 16 to use the HSBC Mining Index, or did that occur  
13:42:40 17 to you after you read Rio's reports?

13:42:47 18 A. I certainly read Rio's reports.  
13:42:50 19 Generally, it is not something that I don't wake  
13:42:52 20 up in the morning thinking of mining indices.

13:42:55 21 But I do think the justification  
13:42:57 22 given was reasonable. The coverage is  
13:42:59 23 reasonable. And all of the corroborating  
13:43:00 24 information are just pointed the same direction.  
13:43:04 25 So, I think it is fine.

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13:43:05 1 Q. When you say that the justification  
13:43:07 2 for the HSBC Mining Index was reasonable, what  
13:43:10 3 are you referring to?

13:43:12 4 A. Well, that the company referred to a  
13:43:15 5 benchmark.

13:43:52 6 Q. Okay. Is that --

13:43:52 7 A. Sorry.

13:43:53 8 Q. We will carry on, and then maybe at  
13:43:55 9 a break we can talk about whether you have like a  
13:43:58 10 headset or something that will put the microphone  
13:44:01 11 on the mouth which will cut down on the  
13:44:03 12 background noise.

13:44:04 13 So, did Rio Tinto in its annual  
13:44:13 14 reports uses the HSBC Mining Index for any sort  
13:44:17 15 of events study?

13:44:19 16 A. No. Why on earth would we use a  
13:44:22 17 mining index event study in an annual report. I  
13:44:26 18 can't imagine why you would. So, no.

13:44:39 19 THE WITNESS: When you get to the  
13:44:40 20 end of this line of questioning, if you like,  
13:44:42 21 I can see if I can pry headphones away from  
13:44:45 22 one of my kids.

13:44:47 23 MR. BEDNAR: Let's keep going for a  
13:44:48 24 little bit, as long as --

13:44:50 25 THE WITNESS: No, no. I'm just

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13:44:51 1 saying whenever I can do that.

13:44:53 2 MR. BEDNAR: No, I appreciate that.

13:44:54 3 And, Lori, if it becomes, something  
13:44:57 4 where you just can't hear, let us know, and  
13:44:59 5 we will break earlier.

13:44:59 6 BY MR. BEDNAR:

13:45:04 7 Q. So --

13:45:06 8 MR. KIRSCH: Tom, and everyone got  
13:45:09 9 used to New York City being quiet.

13:45:09 10 THE WITNESS: Exactly, the  
13:45:13 11 construction is back.

13:45:16 12 MR. KIRSCH: It is now shocking,  
13:45:18 13 hearing noise again.

13:45:19 14 BY MR. BEDNAR:

13:45:20 15 Q. Dr. Hubbard, do you view  
13:45:27 16 AngloAmerican as a useful comparator firm for Rio  
13:45:31 17 Tinto; is that right?

13:45:32 18 A. Yes, it was one of the firms.

13:45:36 19 Q. If Dr. Metz had added AngloAmerican  
13:45:41 20 to the S&P Metals and Mining Index, would that  
13:45:46 21 have changed your opinion?

13:45:47 22 A. Not -- I don't know what you mean by  
13:45:51 23 opinion. Would it rehabilitate the index, is  
13:45:53 24 that your question?

13:45:54 25 Q. Yes.

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13:45:57 1 A. I don't think you can really get  
13:45:58 2 there from here, because the whole thesis of the  
13:46:03 3 S&P index, it starts with the U.S. Canadian  
13:46:07 4 company. So, it is not the S&P index any more.

13:46:09 5 If you are saying would he add any  
13:46:11 6 companies to effectively replicate what I did,  
13:46:14 7 would I agree with it? Sure.

13:46:15 8 But, that is not what he did.

13:46:25 9 Q. Is AngloAmerican essential? If  
13:46:26 10 there an industry index that has some or all of  
13:46:28 11 the other eight comparator firms, but it doesn't  
13:46:31 12 have AngloAmerican, is that still a valid index?

13:46:34 13 A. I don't follow the question.

13:46:37 14 Q. So, if you had the eight firm  
13:46:41 15 comparator index that you used for some of your  
13:46:43 16 analyses and you took AngloAmerican out of it,  
13:46:46 17 would that still have been a valid industry index  
13:46:49 18 in your opinion?

13:46:52 19 A. If it is the right comparator, I'm  
13:46:54 20 not sure why I would take it out of it, if that  
13:46:57 21 is your question.

13:46:57 22 The one I took out was a concern  
13:47:01 23 Dr. Metz had about wanting to be in every year.  
13:47:03 24 So to have that comparator list, I would need a  
13:47:06 25 name on.

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13:47:06 1 But, I don't know the principal  
13:47:07 2 reason for taking out AngloAmerican, unless I am  
13:47:11 3 just not understanding what you are asking.

13:47:13 4 Q. I am not asking you did you do it.  
13:47:15 5 I'm asking you, if AngloAmerican was removed,  
13:47:18 6 would that index be sufficiently comparable to  
13:47:20 7 Rio Tinto to be used in an event study?

13:47:24 8 A. Let me just answer, I don't see a  
13:47:26 9 principled reason for doing that. I haven't done  
13:47:28 10 it, so I don't know what the answer is, if that  
13:47:30 11 is your question. But I don't see a --

13:47:32 12 Q. I am asking you to make an  
13:47:34 13 assumption?

13:47:34 14 MR. KIRSCH: Hang on. Please let  
13:47:36 15 him finish. Glenn, were you finished with  
13:47:38 16 your answer?

13:47:38 17 THE WITNESS: I am finished. I'm  
13:47:40 18 sorry.

13:47:40 19 BY MR. BEDNAR:

13:47:42 20 Q. Dr. Hubbard, I'm sorry, I didn't  
13:47:44 21 mean to cut you off. I did think that you were  
13:47:46 22 finished.

13:47:47 23 If I were to ask you to assume that  
13:47:50 24 AngloAmerican was not in the eight firm  
13:47:53 25 comparator index, would that still be a valid

**CONFIDENTIAL**

13:47:57 1 index to compare to Rio Tinto?

13:48:00 2 A. I think it would be less good than  
13:48:03 3 the index that I have, so I can't imagine that it  
13:48:05 4 would be.

13:48:07 5 Q. If I were --

13:48:08 6 If you were to remove any one firm  
13:48:15 7 would the removal of that one firm be a reminder  
13:48:19 8 that that would be an invalid index?

13:48:21 9 A. I don't know what you mean by  
13:48:22 10 invalid.

13:48:23 11 MR. KIRSCH: Objection.

13:48:25 12 THE WITNESS: The only removal that  
13:48:26 13 I did was really a response to Dr. Metz. I  
13:48:30 14 removed Newmont because it wasn't in every  
13:48:32 15 year.

13:48:32 16 But, otherwise, I don't -- if you  
13:48:35 17 are asking me can I cherry pick different  
13:48:37 18 companies and get different answers, I don't  
13:48:39 19 know. I didn't do it.

13:48:39 20 But, in terms of, is it principled?  
13:48:42 21 No, it is not. I like the list I have. If  
13:48:45 22 you have another list, use it.

13:48:48 23 BY MR. BEDNAR:

13:48:48 24 Q. And what I'm asking you is, the list  
13:48:51 25 that you have, which Rio Tinto compiled, not you,

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13:48:55 1 are there any companies that are essential to  
13:48:58 2 that list for you to deem it be valid for use in  
13:49:04 3 an event study?

13:49:05 4 A. Earlier I said I don't know what  
13:49:07 5 invalid means in this context. I will add to  
13:49:10 6 that the word, essential.

13:49:11 7 I think the index I used is the  
13:49:13 8 right one. Dr. Metz would now want to propose an  
13:49:17 9 H6 and a half or 7 or whatever else he is doing,  
13:49:19 10 go do it.

13:49:20 11 But, I like the event, the index  
13:49:22 12 that I have for the reasons that I said.

13:49:26 13 Q. And I'm asking you, would you  
13:49:28 14 consider that -- let me put it this way.

13:49:34 15 If AngloAmerican was not in that  
13:49:36 16 index, if Rio Tinto had not listed AngloAmerican,  
13:49:39 17 do you have any view on whether that would have  
13:49:41 18 been an index that you would have used for  
13:49:43 19 analysis in an event study?

13:49:44 20 A. If Rio Tinto had not used it. I  
13:49:48 21 would look very hard and figure out why. I would  
13:49:50 22 wonder why a large global mining company had been  
13:49:53 23 excluded.

13:49:54 24 But if the company had a good reason  
13:49:56 25 for not doing it, I would follow that. I mean,

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13:49:58 1 that is not a question about validity. It is  
13:50:00 2 trying to find what the company considers its  
13:50:02 3 comps to be, comparable firms to be.

13:50:06 4 Q. Did you give any consideration to  
13:50:07 5 whether there were companies -- let me ask it  
13:50:23 6 this way.

13:50:24 7 Do you agree with Dr. Metz that  
13:50:25 8 during the time period that he alludes to in his  
13:50:27 9 report, 2008 to 2014, that at different times for  
13:50:31 10 different periods of its long-term incentive  
13:50:34 11 program Rio Tinto had slight differences in the  
13:50:36 12 companies that were listed as comparators, right?

13:50:38 13 A. I do, and that is why I did the  
13:50:42 14 sensitivity that I mention that would take back  
13:50:45 15 that concern.

13:50:47 16 Q. Specifically, what sensitivity did  
13:50:50 17 you do?

13:50:51 18 A. We have talked about it a few times  
13:50:52 19 already. His concern was well, what about things  
13:50:56 20 that are there every year. And so, I think  
13:50:59 21 there -- Newmont was the only one of the eight  
13:51:03 22 that wasn't there every year, so I removed  
13:51:06 23 Newmont and got the same answer.

13:51:08 24 Q. There was one company that was there  
13:51:10 25 every year except for the incentive period that

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13:51:15 1 ended in 2011. Do you recall that? It was Teck  
13:51:19 2 Resources. Do you recall that?

13:51:21 3 A. I don't recall that one way or the  
13:51:23 4 other. I recall Dr. Metz chatting about it in  
13:51:26 5 his deposition, but I don't recall it in any  
13:51:28 6 other context.

13:51:50 7 Q. Let me go ahead and pull up  
13:51:54 8 Dr. Metz's rebuttal report, because I want to  
13:51:57 9 show you the table that he has in that report.

13:51:57 10 (Whereupon, previously marked  
13:51:57 11 Exhibit 225, first referral.)

13:51:57 12 BY MR. BEDNAR:

13:52:10 13 Q. The Exhibit Number is 225 and I will  
13:52:13 14 navigate to the page for you.

13:52:15 15 Page 19 of the report, I will put it  
13:52:23 16 up on the screen. That is Table 1.

13:52:33 17 So, Table 1 shows the companies that  
13:52:36 18 were listed in the long-term incentive program  
13:52:39 19 comparator lists for the periods ending 2008  
13:52:44 20 through 2014.

13:52:48 21 Do you agree with that?

13:52:50 22 A. Agree with what? That this is what  
13:52:54 23 he has on the page or agree with some point?  
13:52:56 24 What are you asking me to agree with?

13:52:58 25 Q. The first question is do you agree

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13:53:00 1 that that is what is on this page?

13:53:01 2 A. I agree that that is what he says is  
13:53:04 3 on this page, yes.

13:53:05 4 Q. Did you or your team go through the  
13:53:08 5 annual reports to verify that the information on  
13:53:11 6 the page is accurate as to when the different  
13:53:13 7 companies were listed for the long-term incentive  
13:53:17 8 program comparators?

13:53:20 9 A. I don't recall. We may well have.

13:53:26 10 Q. Do you see part way down the page  
13:53:30 11 the Teck Resources a/k/a Teck Cameco, T-E-C-K was  
13:53:38 12 listed for all of the incentive program periods  
13:53:42 13 except for one ending in 2011? Do you see that?

13:53:46 14 A. Yes.

13:53:47 15 Q. Okay. Did you run any sensitivity  
13:53:51 16 on your eight firm comparator index if Teck  
13:54:01 17 Cameco was added to that index?

13:54:03 18 A. I don't recall doing that. I know  
13:54:06 19 Dr. Metz talked about it in his deposition. So,  
13:54:10 20 I know his view. But, I don't recall doing it  
13:54:13 21 because it was different than his other  
13:54:14 22 criticism.

13:54:15 23 I know he talked about them. I had  
13:54:17 24 not checked it myself.

13:54:19 25 Q. So, am I correct that the one

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13:54:21 1 sensitivity you ran on the eight company index  
13:54:24 2 from 2011 was to back Newmont out of it; is that  
13:54:29 3 right?

13:54:30 4 A. Yes.

13:54:30 5 Q. Any other sensitivity that you ran  
13:54:33 6 on the Eight Firm Index?

13:54:36 7 A. Not on the Eight Firm Index.  
13:54:38 8 Because that, I -- you know, I am shadow boxing  
13:54:42 9 here because he keeps changing. But what he had  
13:54:46 10 complained about was not being in every year, so  
13:54:48 11 I tried to follow that. But that is what I did.

13:54:51 12 Q. Is there any reason to exclude Teck  
13:54:58 13 from the index?

13:55:03 14 A. I'm not sure what that question is  
13:55:05 15 about. It does -- it is not responsive to  
13:55:09 16 Dr. Metz's nor was it part of my original  
13:55:13 17 exercise. So I'm not sure why I would include  
13:55:16 18 it, but I'm not quite sure what the question is.

13:55:19 19 Q. Okay. You said your use of the  
13:55:22 20 eight company comparator index, is the reason  
13:55:25 21 that you used those eight companies is that they  
13:55:28 22 were the eight companies listed by Rio Tinto for  
13:55:31 23 the compensation period ending 2011?

13:55:34 24 A. Yes.

13:55:36 25 Q. Was there any other reason that you

**CONFIDENTIAL**

13:55:37 1 used those eight companies?

13:55:39 2 A. No.

13:55:49 3 Q. Given that you see Teck listed in  
13:55:52 4 Table 1 for all year, except the period ending  
13:55:57 5 2011, do you have any basis as you sit here today  
13:56:00 6 to render an opinion as to whether Teck Resources  
13:56:04 7 is comparable to Rio Tinto for purposes of  
13:56:09 8 including it in an industry index?

13:56:12 9 A. Can I have it -- analyze this. I'm  
13:56:16 10 just looking at it, the other exercise I did was  
13:56:18 11 in response to what I thought Dr. Metz's critique  
13:56:23 12 was. If there was a different one, I've got to  
13:56:25 13 go back and look.

13:56:26 14 But I have also looked at the  
13:56:28 15 top 10, the top 15. I have looked at a number of  
13:56:30 16 them and they don't make a difference.

13:56:32 17 I don't recall --

13:56:33 18 Q. The top 10 or 15 of what?

13:56:34 19 A. So, looking at the top 10 or 15 of  
13:56:38 20 the HSBC index.

13:56:41 21 Q. Okay. Which is different from  
13:56:43 22 looking at the companies that Rio Tinto listed as  
13:56:45 23 comparators, right?

13:56:46 24 A. Correct. I'm just saying I did a  
13:56:48 25 lot of sensitivity analysis.

**CONFIDENTIAL**

13:56:50 1 Q. Okay. We are turning to  
13:57:15 2 AngloAmerican.

13:57:15 3 Did you form any view as to why  
13:57:18 4 AngloAmerican was an essential comparator other  
13:57:24 5 than the fact that Rio Tinto had listed it?

13:57:27 6 A. I don't know what you mean by  
13:57:28 7 essential, what would be the motivation for using  
13:57:33 8 Rio Tinto comparators, but I lined the business  
13:57:36 9 and the companies that used it.

13:57:37 10 So, I don't know what essential is,  
13:57:39 11 but that is what I did.

13:57:40 12 Q. Okay. You specifically criticize  
13:57:46 13 the S&P Metals and Mining Index because it did  
13:57:49 14 not include AngloAmerican, correct?

13:57:51 15 A. Among others, yes.

13:57:52 16 Q. Did you have a reason for that,  
13:57:57 17 other than the fact that Rio Tinto had listed it?

13:58:00 18 A. I think we talked about it before  
13:58:03 19 lunch, which is trying to get at large globally  
13:58:07 20 diversified miners, of which that is one.

13:58:18 21 Q. And is the important part that they  
13:58:20 22 be large and diversified or just the specific  
13:58:24 23 product mix part of your opinion?

13:58:26 24 MR. KIRSCH: Objection, vague.

13:58:28 25 THE WITNESS: No, I think if, for it

**CONFIDENTIAL**

13:58:32 1 to be comparable, you want it to be  
13:58:34 2 relatively large firms as opposed to just a  
13:58:37 3 very small firm. And that could certainly be  
13:58:41 4 the company issue.

13:58:43 5 BY MR. BEDNAR:

13:58:44 6 Q. And so what analysis did you perform  
13:58:46 7 to determine that AngloAmerican was comparable in  
13:58:58 8 terms of products with Rio Tinto?

13:59:05 9 A. Well, I am going from memory here.  
13:59:07 10 It certainly meets the size categorization. And  
13:59:12 11 when we looked at product mixes of the top firms  
13:59:14 12 it was, you know, always of a diversified miner.  
13:59:18 13 So, I don't recall off the top of my head exactly  
13:59:21 14 what we did.

13:59:21 15 Q. Okay. In 2011, AngloAmerican was  
13:59:40 16 the world's Number 3 exporter of steelmaking  
13:59:45 17 coal. Were you aware of that?

13:59:48 18 A. I don't recall one way or the other.

13:59:58 19 Q. Well, did you consider the role that  
14:00:03 20 coal plays to AngloAmerican's operations  
14:00:07 21 determining that it is a good comparator for Rio  
14:00:12 22 Tinto?

14:00:12 23 A. As I say, I don't recall all of the  
14:00:15 24 product mix analysis that we did. It is the same  
14:00:18 25 answer.

**CONFIDENTIAL**

14:00:19 1 Q. So, if you considered that, would it  
14:00:22 2 be spelled out in your report?

14:00:24 3 A. Well, we talked about the  
14:00:26 4 characteristics in the report. So, it is  
14:00:29 5 obviously a qualitative conclusion, that the  
14:00:31 6 company had come to that conclusion, too. But, I  
14:00:34 7 don't recall sitting here today.

14:00:34 8 Q. Okay. Your materials considered in  
14:00:40 9 Appendix B to your report lists many different  
14:00:44 10 annual reports that were reviewed in preparing  
14:00:47 11 your report. Right?

14:00:48 12 A. Yes, sir.

14:00:49 13 Q. So, you or members of your team  
14:00:52 14 reviewed the annual reports for companies that  
14:00:55 15 were in the eight firm list of comparators,  
14:01:01 16 right?

14:01:01 17 A. Yes, sir.

14:01:02 18 Q. And, so if AngloAmerican's 2011  
14:01:20 19 annual report disclosed that it was the Number 3  
14:01:23 20 exporter of metallurgical coal in the world,  
14:01:26 21 would you have considered that at the time in  
14:01:28 22 comparing it to Rio Tinto?

14:01:30 23 A. I'm sure we considered whatever we  
14:01:33 24 read. As I said, sitting here today, I don't  
14:01:37 25 recall. It is essentially the same answer.

171

**CONFIDENTIAL**

14:01:39 1 Q. Okay. So, does that also mean that  
14:01:47 2 you are representing that you would have  
14:01:49 3 considered that AngloAmerican owned the world's  
14:01:53 4 largest platinum reserves in 2011?

14:01:57 5 A. We looked at all of the companies'  
14:01:59 6 lines of businesses. I just don't recall them  
14:02:01 7 off the top of my head.

14:02:02 8 Q. Was Rio Tinto involved in selling  
14:02:07 9 platinum in 2011?

14:02:08 10 A. Not to my knowledge, that I recall.

14:02:12 11 Q. Did you or a member of your team do  
14:02:16 12 any analysis of whether the fact that  
14:02:20 13 AngloAmerican had the world's largest platinum  
14:02:23 14 reserves with the level, if any, of platinum  
14:02:28 15 operations that Rio Tinto had?

14:02:32 16 A. I'm not even sure what you are  
14:02:34 17 asking me. I'm not sure what that means at the  
14:02:38 18 end of the day.

14:02:38 19 We were looking at large globally  
14:02:42 20 diversified miners that did overlapping, if not  
14:02:45 21 very similar, product courses.

14:02:47 22 So, I can't recall, as I said to  
14:02:51 23 you, what all that we looked at. It is the same  
14:02:54 24 answer every time you ask the question.

14:02:56 25 Q. Part of what I'm trying to get at is

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14:02:59 1 you are saying overlapping product mixes; is that  
14:03:01 2 right? That is what you are looking for?

14:03:03 3 A. Well, where possible. Obviously you  
14:03:05 4 want to get as close as possible. You are never  
14:03:08 5 going to get perfection.

14:03:10 6 Q. Explain to me what level of overlap  
14:03:13 7 between product mixes is sufficient for you to  
14:03:17 8 determine that a company is a useful comparator  
14:03:20 9 for an event study.

14:03:21 10 A. There is really no line in the sand  
14:03:25 11 answer there. That is why I do take comfort of  
14:03:30 12 the company's own decision to look out at its  
14:03:33 13 competitors on a FSR, functional return.

14:03:41 14 Q. And so, do you have a similar answer  
14:03:48 15 if I ask you whether you considered the fact that  
14:03:50 16 in 2011 AngloAmerican owns De Beers which is one  
14:03:55 17 of the world's leading diamond companies?

14:03:59 18 A. I hear the statement part, but what  
14:04:03 19 is the question part?

14:04:04 20 Q. The question is whether you  
14:04:05 21 considered that.

14:04:06 22 A. I don't know what consider means.  
14:04:08 23 I'm sure we reviewed all of that information.

14:04:10 24 Q. Did you personally give  
14:04:17 25 consideration to that?

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14:04:18 1 A. Just sitting here today, I don't  
14:04:19 2 really recall everything that is in all of those  
14:04:22 3 annual reports. Sorry, same answer.

14:04:31 4 Q. Was Rio Tinto a diamond producer in  
14:04:33 5 2011?

14:04:36 6 A. I don't recall. I don't think so.  
14:04:38 7 But, I don't recall.

14:04:43 8 Q. So, do you have any recollection of  
14:04:46 9 any consideration that you gave to how the fact  
14:04:50 10 that AngloAmerican owned one of the world's  
14:04:54 11 leading diamond companies factored into your  
14:04:56 12 determination that AngloAmerican was a useful  
14:05:00 13 comparator for Rio Tinto?

14:05:02 14 A. I don't recall. I'm not sure why I  
14:05:05 15 would. You could be very important in some other  
14:05:08 16 market but still very much in the other  
14:05:10 17 businesses. So, I'm not sure why it is relevant.  
14:05:13 18 But, the actual answer is I don't recall.

14:05:16 19 Q. Okay. Is it relevant to you at all  
14:05:24 20 who the other companies in the eight firm  
14:05:29 21 comparator index, who they list as their  
14:05:31 22 competition?

14:05:33 23 Is that relevant at all?

14:05:36 24 A. I think it depends on the purpose  
14:05:38 25 for which they do it and how they explain what

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14:05:41 1 they do.

14:05:43 2 Q. Well, if the purpose is to benchmark  
14:05:46 3 against their competition, would that be relevant  
14:05:49 4 to you?

14:05:50 5 A. It is not typically the way  
14:05:52 6 companies write, so you have to be a little more  
14:05:55 7 specific.

14:05:55 8 That can be the product market.  
14:05:57 9 That could be for analogues. It could be for  
14:05:58 10 executive compensation. I'm not sure what you  
14:06:02 11 are referring to. That method is describing how  
14:06:04 12 you feel.

14:06:04 13 Q. If the company that was on Rio  
14:06:09 14 Tinto's eight firm comparator list compiles its  
14:06:14 15 own list of competitors for purposes of  
14:06:19 16 compensation, would that be relevant to you?

14:06:22 17 A. May or may not. Depending on how  
14:06:24 18 they do it, the importance of other businesses.  
14:06:27 19 They may have. They may be looking for something  
14:06:30 20 slightly different.

14:06:30 21 So, I don't know one way or the  
14:06:33 22 other. I was asked to analyze this company, Rio  
14:06:36 23 Tinto.

14:06:36 24 (Exhibit Number 1166  
14:06:36 25 marked for identification.)

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14:06:40 1 BY MR. BEDNAR:

14:06:40 2 Q. So, I will show you Exhibit 1166.  
14:07:08 3 And I will take you first to the cover. Do you  
14:07:16 4 see that that is AngloAmerican's 2011 annual  
14:07:21 5 report?

14:07:21 6 A. I see that.

14:07:22 7 Q. I will take you to Page 107 of the  
14:07:27 8 PDF, which I think is also Page 107 of the  
14:07:30 9 report.

14:07:30 10 This is part of the governance  
14:07:33 11 section of the annual report.

14:07:35 12 A. Okay.

14:07:35 13 Q. In Section 3.5 you see AngloAmerican  
14:07:42 14 describing its long-term incentive program -- or  
14:07:45 15 I'm sorry. The long-term incentive plan?

14:07:48 16 MR. KIRSCH: Sorry. Tom, what page  
14:07:49 17 are you on?

14:07:51 18 MR. BEDNAR: 107.

14:07:51 19 MR. KIRSCH: Thank you.

14:07:52 20 BY MR. BEDNAR:

14:07:52 21 Q. And at the bottom right there is a  
14:07:54 22 Figure 6, which is a -- which is titled Sector  
14:07:58 23 Index. Do you see that?

14:07:59 24 A. Yes.

14:08:00 25 Q. And, in fact, AngloAmerican does

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14:08:04 1 list Rio Tinto as one of its competitors. You  
14:08:07 2 see that, right?

14:08:07 3 A. Yes.

14:08:12 4 Q. And AngloAmerican lists Teck Cominco  
14:08:16 5 Limited as one of its competitors, correct?

14:08:19 6 A. I'm not sure if it is a competitor.  
14:08:21 7 I mean, it is a comparator. And I'm not sure  
14:08:23 8 exactly for what purpose --

14:08:23 9 Q. That is a fair point. Yes, that is  
14:08:25 10 a fair point. I'm sorry.

14:08:25 11 A. Okay.

14:08:25 12 Q. It specifically says comparator  
14:08:28 13 companies, not competitor companies, right?

14:08:30 14 A. Right. Well, those are different  
14:08:32 15 things, so that is why I corrected.

14:08:34 16 Q. Sure. And, so for long-term  
14:08:36 17 incentive plan, so for the same purpose that Rio  
14:08:39 18 Tinto has a list of comparator firms,  
14:08:45 19 AngloAmerican has a list of comparator firms,  
14:08:47 20 right?

14:08:48 21 A. Yes, again I'm not sure what metric  
14:08:50 22 or how to get it. But, yes, I can clearly see  
14:08:53 23 that.

14:08:53 24 Q. Do you know how Rio Tinto compiled  
14:08:55 25 their list of comparator firms?

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14:08:57 1 A. I believe they were looking at total  
14:09:03 2 shareholder return correlations and line of  
14:09:05 3 business judgments. I don't recall.

14:09:09 4 Q. So, if you look at the paragraph at  
14:09:12 5 the bottom left of this page that we are on,  
14:09:13 6 Page 107, the AngloAmerican report says, "Half of  
14:09:17 7 each award is subject to a group total  
14:09:20 8 shareholder earn measure while the other half is  
14:09:23 9 subject to a group operational method."

14:09:26 10 Do you see that?

14:09:27 11 A. Yes, but it has nothing to do with  
14:09:32 12 comparator companies, but -- to the extent a  
14:09:38 13 group does not refer to that group.

14:09:40 14 Q. So, if the total shareholder return  
14:09:46 15 measure was applied to the returns of the  
14:09:49 16 comparator firms, would that be similar to what  
14:09:52 17 Rio Tinto is describing?

14:09:55 18 MR. KIRSCH: Objection.

14:09:57 19 THE WITNESS: You would think they  
14:09:59 20 did. I'm not really sure what they did. The  
14:10:02 21 paragraph you are reading is a different  
14:10:04 22 point about how compensation is decided in  
14:10:07 23 the [garbled] based on lines of business --

14:10:08 24 BY MR. BEDNAR:

14:10:09 25 Q. Sure. And I, I understand that

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14:10:12 1 distinction.

14:10:12 2                   So, if AngloAmerican had used the  
14:10:15 3 total shareholder return measure based on the  
14:10:17 4 comparators, that would be the same measure that  
14:10:20 5 Rio Tinto would be using in its comparator index.  
14:10:23 6 Right?

14:10:25 7                   MR. KIRSCH: Objection.

14:10:26 8                   THE WITNESS: No, depending on  
14:10:29 9 whatever qualitative judgment they applied,  
14:10:31 10 what time period. I don't know. It might  
14:10:32 11 be.

14:10:33 12 BY MR. BEDNAR:

14:10:33 13                   Q.     Okay. So, that is the information  
14:10:36 14 that you would want to look at to try to  
14:10:39 15 determine a comparison between AngloAmerican's  
14:10:42 16 comparator list and Rio Tinto's comparator list,  
14:10:44 17 right?

14:10:44 18                   A.     I'm not sure why I would want to do  
14:10:47 19 that.

14:10:47 20                   You are asking about it. From me  
14:10:50 21 writing a report, I can't imagine why I would do  
14:10:52 22 that.

14:10:53 23                   Q.     Okay. In any event, AngloAmerican  
14:10:58 24 for the year 2011 lists Rio Tinto as a  
14:11:01 25 comparator, right?

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14:11:02 1 A. Yes, it is on the list.

14:11:04 2 Q. And lists Teck has a comparator,  
14:11:07 3 right?

14:11:07 4 A. It is also on the list.

14:11:10 5 Q. Just as Rio Tinto for all, but one,  
14:11:13 6 of the periods compiled by Dr. Metz listed Teck  
14:11:17 7 as a comparator, right?

14:11:19 8 A. If that is what it stated, yes.

14:11:23 9 Q. I'm going to direct you just briefly  
14:12:01 10 before we leave that exhibit, the last couple of  
14:12:04 11 questions on that exhibit, again is 1166. I'm on  
14:12:08 12 the next page, Page 108.

14:12:10 13 The middle column, at the top of the  
14:12:13 14 page --

14:12:16 15 A. Okay.

14:12:16 16 Q. -- says Total Shareholder Return.  
14:12:19 17 And the second paragraph says, "50 percent of the  
14:12:22 18 proportion of each award that is based on TSR is  
14:12:28 19 measured against the sector index, and 50 percent  
14:12:30 20 is measured against the constituents of the 50,  
14:12:34 21 100." Do you see that?

14:12:35 22 A. Okay.

14:12:36 23 Q. And so, is that a similar method for  
14:12:40 24 using the comparator index that Rio Tinto uses?

14:12:45 25 A. I don't really recall the weighting

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14:12:47 1 in Rio Tinto and over what time period.

14:12:50 2 I don't know. They both mention the  
14:12:54 3 word TSR, if that is the point of your question.

14:12:54 4 (Exhibit Number 1162  
14:12:54 5 marked for identification.)

14:13:29 6 BY MR. BEDNAR:

14:13:29 7 Q. I'm going to take you to  
14:13:31 8 Exhibit 1162, which is the 2011 annual report on  
14:13:41 9 Form 20-F for HP Billiton.

14:13:47 10 Can you see it on your screen?

14:13:50 11 A. Yes, I can.

14:13:51 12 Q. And you or members of your team  
14:13:54 13 reviewed this report when preparing your own  
14:13:56 14 report. Right?

14:13:57 15 A. Yes. We did. And in the binders, I  
14:14:00 16 am reminded how massive it is.

14:14:03 17 Q. Yes, it is 577 pages, a lot of  
14:14:08 18 events to report.

14:14:08 19 If I take you to Page 235 of the  
14:14:13 20 PDF, which is Page 229 of the report. This is  
14:14:21 21 BHP's Billiton's long-term incentive program  
14:14:24 22 awards.

14:14:25 23 And you see at the middle of the  
14:14:27 24 page, they have comparator groups for different  
14:14:30 25 time periods that are covered as well. Do you

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14:14:32 1 see that?

14:14:33 2 A. I do.

14:14:34 3 Q. And do you see Rio Tinto is covered  
14:14:35 4 in all three of the periods. Right?

14:14:39 5 A. Yes.

14:14:42 6 Q. And then two lines before that Teck  
14:14:48 7 Cominco is in two of the three periods, right?

14:14:51 8 A. Yes.

14:14:51 9 Q. And the two are the periods 2004 to  
14:14:54 10 2006, right?

14:14:59 11 A. Yes.

14:14:59 12 Q. Now, you also see in this list of  
14:15:01 13 comparator firms a number of oil and gas  
14:15:03 14 companies, right?

14:15:04 15 A. Yes.

14:15:04 16 Q. Like ExxonMobil, Marathon Oil,  
14:15:10 17 Shell.

14:15:13 18 Does it at all affect the  
14:15:16 19 comparability of BHP to Rio Tinto that BHP has  
14:15:21 20 significant oil operations in 2011, whereas Rio  
14:15:25 21 Tinto did not?

14:15:29 22 A. It needn't, no.

14:15:32 23 Q. Why not?

14:15:37 24 A. Well, then you are not going to get  
14:15:38 25 a precise product mix. The question is there

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14:15:41 1 this close an overlap as possible. Both  
14:15:45 2 companies consider the other to be a comparable.  
14:15:47 3 So, you have sort of answered your own question.

14:15:52 4 Q. And, did you --

14:16:06 5 Was Xstrata one of the companies  
14:16:08 6 that you were under the opinion should have been  
14:16:15 7 included in the S&P Metals and Mining Index?

14:16:19 8 A. I think it is in that page. I would  
14:16:21 9 have to go back and look at Exhibit 4. Bancorp.  
14:16:27 10 Let's see.

14:16:36 11 Q. Sure, and I can --

14:16:37 12 A. Sure, it is in the related peer  
14:16:40 13 index.

14:16:40 14 Q. And specifically I will show you  
14:16:42 15 just to kind of complete the record on that,  
14:16:44 16 Paragraph 36 of your report in the second  
14:16:48 17 sentence points out that Dr. Metz does not  
14:16:51 18 include a number of comparators including  
14:16:54 19 AngloAmerican, Xstrata, BHP and Merrick Gold,  
14:17:02 20 okay?

14:17:03 21 A. Okay.

14:17:10 22 Q. Was there anything in particular  
14:17:11 23 about Xstrata that you think made it a useful  
14:17:15 24 comparator to Rio Tinto other than the fact that  
14:17:17 25 Rio Tinto listed it as a comparator?

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14:17:22 1 MR. KIRSCH: Objection.

14:17:23 2 THE WITNESS: I think this spot  
14:17:24 3 combined being a large diversified miner.

14:17:29 4 BY MR. BEDNAR:

14:17:30 5 Q. Okay. And do you recall which  
14:17:44 6 metals Xstrata was mainly involved in mining?

14:17:49 7 A. I don't, off the top of my head.

14:17:51 8 Q. Now, they don't need to be the same  
14:18:00 9 exact list of metals that Rio Tinto mines?

14:18:03 10 A. It would be rare to find companies  
14:18:08 11 that are an exact clone.

14:18:08 12 Q. Is there sort of any measure of  
14:18:10 13 overlap that you need in terms of the product  
14:18:12 14 that Xstrata mines versus the product that Rio  
14:18:14 15 Tinto mined?

14:18:15 16 A. You asked me that question earlier.

14:18:16 17 MR. KIRSCH: Objection. In order to  
14:18:17 18 what?

14:18:18 19 BY MR. BEDNAR:

14:18:19 20 Q. In order to be a useful comparator  
14:18:20 21 for an industry index.

14:18:22 22 A. You asked that question earlier.  
14:18:24 23 So, the answer is the same. There is no bright  
14:18:29 24 line. It is a matter of judgment.

14:18:31 25 And certainly the company's

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14:18:32 1 judgment. You are probably going to show me  
14:18:35 2 Xstrata's annual report and we will now see its  
14:18:38 3 judgment.

14:18:38 4 That is the best way I can know how  
14:18:40 5 to answer it.

14:18:41 6 Q. And in terms of products, does it  
14:18:50 7 matter for determining whether Xstrata and Rio  
14:18:56 8 Tinto are useful comparators for the event study  
14:18:59 9 that Xstrata is focused on copper, coal, nickel  
14:19:04 10 and zinc?

14:19:07 11 Does that particular product mix  
14:19:11 12 matter to whether it is a good comparator?

14:19:13 13 A. There is overlap there, and you just  
14:19:17 14 purported to show me a chart a few minutes and  
14:19:20 15 that copper is in HSBC Mining.

14:19:34 16 Q. Well, does the fact that Xstrata is  
14:19:36 17 focused on copper, and copper tends to move the  
14:19:41 18 HSBC Mining Index, what does that say about  
14:19:43 19 whether Xstrata is a useful comparator to Rio  
14:19:47 20 Tinto for an event study?

14:19:49 21 MR. KIRSCH: Objection. Vague.

14:19:53 22 THE WITNESS: I'm not sure what you  
14:19:54 23 are asking. But, with the HSBC indexes comes  
14:19:58 24 up with a mining index. We talked about  
14:20:01 25 that. It is now purported to show that it is

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14:20:05 1 about copper. I already questioned whether  
14:20:07 2 that is a valid study that you showed me and  
14:20:11 3 pictured it.

14:20:12 4 To me what makes it comparable is  
14:20:15 5 back to the same. Is it similar enough?  
14:20:17 6 Does the company judge it to be similar  
14:20:19 7 enough to make it a comparable firm?

14:20:22 8 For your line of questions to make  
14:20:24 9 sense, you have to believe that excluding all  
14:20:27 10 large miners makes a better index. And that  
14:20:33 11 is about a head structure.

14:20:36 12 BY MR. BEDNAR:

14:20:45 13 Q. So, you are saying that in terms of  
14:20:48 14 product mix, it has to be similar enough that the  
14:20:53 15 company considers it a comparator firm. Is that  
14:20:55 16 right?

14:20:57 17 MR. KIRSCH: Objection.

14:20:59 18 THE WITNESS: I think -- I did say  
14:21:00 19 that, that the company could be important as  
14:21:04 20 far as judgment in some analysts. But, yes,  
14:21:09 21 all of that is important.

14:21:10 22 BY MR. BEDNAR:

14:21:10 23 Q. Did you do an analysis of whether  
14:21:12 24 the product mix of Xstrata and Rio Tinto was  
14:21:15 25 similar enough to be a useful comparator for an

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14:21:19 1 industry index?

14:21:20 2 A. You asked that question earlier,  
14:21:22 3 too, so it will be the same answer. You asked it  
14:21:25 4 in a different company, same answer.

14:21:26 5 But, we did. I think, we, Kevin and  
14:21:30 6 I would read all of these, and made qualitative  
14:21:34 7 conclusion along with the information in the  
14:21:36 8 company's report. That is what we did.

14:21:40 9 Q. And so to the extent that you  
14:21:52 10 reached any opinions on whether the product mix  
14:21:55 11 of Xstrata and Rio Tinto are sufficiently  
14:22:00 12 comparable to be comparators for an industry  
14:22:03 13 index, would that be spelled out in the report or  
14:22:05 14 in the backup materials --

14:22:06 15 A. Yes.

14:22:07 16 Q. -- which is in the appendices?

14:22:10 17 A. Yes.

14:22:11 18 Q. Okay. So if it is not in the report  
14:22:17 19 or in the appendices or exhibits, you don't have  
14:22:20 20 an opinion on what would make the product mix of  
14:22:23 21 an Xstrata sufficiently comparable to a Rio Tinto  
14:22:27 22 to be useful comparators for an event study?

14:22:31 23 A. I wouldn't say that. I do think it  
14:22:33 24 is in those materials. But we came to a  
14:22:35 25 qualitative conclusion looking at the company's

**CONFIDENTIAL**

14:22:37 1 choices. Like I said, I don't recall everything  
14:22:40 2 that we did. Same answer.

14:22:44 3 Q. Okay. And I think you forecast  
14:23:01 4 this, Doctor, but I am going to show you the  
14:23:08 5 Xstrata 2011 annual report.

14:23:12 6 A. Okay.  
14:23:12 7 (Exhibit Number 1165  
14:23:12 8 marked for identification.)

14:23:12 9 BY MR. BEDNAR:

14:23:18 10 Q. That is Exhibit 1165. A smiling  
14:23:23 11 person on the cover. And I'm going to take you  
14:23:25 12 to Page 117 of the PDF, which is in the  
14:23:38 13 remuneration section of the report. And it  
14:23:39 14 describes Xstrata's use of a comparator index  
14:23:49 15 under performance conditions.

14:23:52 16 And there the comparator index also  
14:23:55 17 has Rio Tinto, right?

14:23:58 18 A. Yes, both companies appear just like  
14:23:59 19 the other.

14:24:00 20 Q. And have Teck Resources?

14:24:03 21 A. It does.

14:24:07 22 MR. KIRSCH: Tom, I'm sorry. What  
14:24:09 23 page are you on again?

14:24:10 24 MR. BEDNAR: I was on Page 117 of  
14:24:12 25 the PDF, which is 101 of the report, I'm

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14:24:15 1           sorry.

14:24:16 2                   MR. KIRSCH: 101. That is okay.

14:24:18 3           Thank you.

14:24:34 4 BY MR. BEDNAR:

14:24:43 5           Q. I'm going to ask you about Vale.

14:24:47 6 Now, you obviously considered Vale to be a useful  
14:24:50 7 comparator for Rio Tinto, right?

14:24:51 8           A. Yes.

14:24:52 9           Q. Vale is one of the largest iron ore  
14:25:00 10 miners in the world, right?

14:25:02 11          A. Yes.

14:25:02 12          Q. Let me actually switch gears and ask  
14:25:42 13 you about Barrick Gold. Barrick Gold was in the  
14:26:09 14 eight company comparator index that you used in  
14:26:12 15 your event study, right?

14:26:13 16          A. Yes, sir.

14:26:17 17          Q. And, what if anything did you do to  
14:26:20 18 analyze whether the product mix of Barrick Gold  
14:26:24 19 is sufficiently comparable with the product mix  
14:26:28 20 of Rio Tinto to serve as a useful comparator for  
14:26:35 21 the event study?

14:26:36 22          A. Again, I don't really recall what we  
14:26:39 23 found when we looked at the annual report. But,  
14:26:41 24 I don't recall. Same answer as before.

14:26:44 25          Q. And is there anything that would

**CONFIDENTIAL**

14:26:47 1 refresh your memory on that?

14:26:50 2 A. No.

14:26:58 3 Q. If you reached any conclusions about  
14:27:02 4 the comparability of the product mix between the  
14:27:05 5 two companies, would it be listed in your report  
14:27:07 6 or the exhibits in appendices?

14:27:11 7 A. It should be. It could also be a  
14:27:14 8 qualitative judgment. It should be, yes.

14:27:16 9 Q. Well, if there is a qualitative  
14:27:19 10 adjustment to be reflected, would that be written  
14:27:22 11 down in any way in your report?

14:27:23 12 A. It should be, yes. That is what I'm  
14:27:25 13 saying.

14:27:26 14 Q. But as you sit here right now, you  
14:27:28 15 don't recall whether such analysis was done?

14:27:32 16 A. Well, I recall the analysis. I'm  
14:27:35 17 just not recalling the particulars of it.

14:27:42 18 Q. And Barrick Gold, at the time in  
14:27:47 19 2011, was the largest gold company, right?

14:27:50 20 And Newmont, another company that  
14:27:53 21 was in your eight firm comparator index, that was  
14:27:57 22 another of the world's very large gold companies,  
14:28:00 23 right?

14:28:00 24 A. That is certainly true.

14:28:02 25 Q. Would you describe either of those

**CONFIDENTIAL**

14:28:07 1 as diversified mining company?

14:28:10 2 A. I really don't recall what other  
14:28:13 3 lines of business are.

14:28:19 4 Q. Is it important to be diversified to  
14:28:21 5 be useful comparators to Rio Tinto for an event  
14:28:23 6 study?

14:28:23 7 A. That wasn't the point I made  
14:28:25 8 earlier. I said the document said inadvertently  
14:28:29 9 excluded all large diversified companies, and I  
14:28:31 10 think that is important.

14:28:32 11 The company may also have viewed  
14:28:34 12 other companies as worthy competitors.

14:28:35 13 So this justification is not the  
14:28:37 14 only element. I just don't recall what lines of  
14:28:40 15 business they're in.

14:28:40 16 Q. And I'm asking you to be a useful  
14:28:43 17 comparator for purposes of an event study on Rio  
14:28:46 18 Tinto, is it important that the companies in that  
14:28:49 19 index be diversified?

14:28:54 20 A. I don't know what important means.  
14:28:58 21 I mean I assume that you want companies as  
14:29:03 22 similar to Rio Tinto as possible. But the  
14:29:04 23 company may have viewed their other businesses  
14:29:06 24 are sufficiently correlated with it to be worthy  
14:29:08 25 of comparison.

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14:29:09 1 So, again, I don't recall all of the  
14:29:11 2 various lines of Barrick or Newmont.

14:29:16 3 MR. KIRSCH: Tom, we have been going  
14:29:19 4 about an hour and 20 minutes. And when you  
14:29:21 5 get to the end of this line, let's take a  
14:29:23 6 break, please.

14:29:26 7 MR. BEDNAR: We can break now. That  
14:29:27 8 is fine.

14:29:28 9 Can you take us off the record?

14:29:29 10 THE VIDEOGRAPHER: We are going off  
14:29:31 11 the record. The time is 2:29 eastern.

14:29:35 12 (Recess taken -- 2:29 p.m.)

14:45:39 13 (After recess -- 2:45 p.m.)

14:45:39 14 THE VIDEOGRAPHER: We are going back  
14:45:50 15 on the record. The time is 2:45 eastern.

14:45:56 16 BY MR. BEDNAR:

14:46:05 17 Q. Dr. Hubbard, I want to ask you a few  
14:46:10 18 questions about the April 8, 2011, acquisition of  
14:46:17 19 Riversdale by Rio Tinto.

14:46:21 20 So, it is your opinion that the  
14:46:30 21 market had viewed it as that Rio Tinto would  
14:47:26 22 acquire control prior to April 8, 2011.

14:47:26 23 So, Dr. Hubbard, am I correct that  
14:47:29 24 your opinion is that the market had an  
14:47:33 25 expectation prior to April 8, 2011, that Rio

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14:47:39 1 Tinto would obtain control of Riversdale?

14:47:43 2 A. Yes, that is my opinion I have on  
14:47:51 3 that subject.

14:47:52 4 Q. Did you reach any opinion as to  
14:47:54 5 whether the market had an expectation of whether  
14:47:56 6 Rio Tinto would gain control of Riversdale  
14:47:58 7 without having to make concessions to the CSN or  
14:48:05 8 Tata Steel companies?

14:48:09 9 MR. KIRSCH: Objection, vague.

14:48:10 10 THE WITNESS: I'm not sure what you  
14:48:16 11 asked. If I am understanding your question,  
14:48:17 12 no. It wouldn't have been doable, so no.

14:48:25 13 BY MR. BEDNAR:

14:48:26 14 Q. Did you come across any analyst's  
14:48:28 15 coverage or news coverage prior to April 8, 2011,  
14:48:32 16 predicting that Rio Tinto would acquire control  
14:48:37 17 without having to make concessions to CSN or  
14:48:41 18 Tata?

14:48:41 19 MR. KIRSCH: Objection as to what  
14:48:43 20 concessions means in this context.

14:48:47 21 BY MR. BEDNAR:

14:48:48 22 Q. Well, let me ask you this:

14:48:49 23 So, CSN and Tata were the two  
14:48:52 24 largest shareholders of Riversdale besides Rio  
14:48:55 25 Tinto in April of 2011?

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14:48:57 1 A. Yes.

14:48:58 2 Q. And, I'm sorry, I didn't mean to cut  
14:49:00 3 you off. And both CSN and Tata were steelmaking  
14:49:06 4 companies, right?

14:49:07 5 A. Correct.

14:49:08 6 Q. And, fair to say that their interest  
14:49:10 7 in Riversdale was primarily driven by their  
14:49:16 8 interest in acquiring access to metallurgical  
14:49:20 9 coal that could be used in their steelmaking  
14:49:22 10 operations?

14:49:22 11 A. Yes. That was certainly a factor.

14:49:25 12 Q. And in conducting your event study  
14:49:30 13 did you see any news coverage expressing the view  
14:49:35 14 that Rio Tinto might have to enter into favorable  
14:49:40 15 contracts to supply metallurgical coal to CSN or  
14:49:46 16 Tata as a condition of obtaining shares from CSN  
14:49:50 17 or Tata?

14:49:52 18 A. If I understand the question, I  
14:49:54 19 don't recall one way or the other. I have all of  
14:49:56 20 the news articles that I was able to retrieve.  
14:49:59 21 They are all in the report.

14:50:00 22 Q. Okay. So, is it fair to say that  
14:50:09 23 within the article cited in your report or the  
14:50:12 24 appendices to your report, if there are articles  
14:50:16 25 regarding the issue of CSN or Tata seeking

**CONFIDENTIAL**

14:50:18 1 concessions from Rio Tinto, that that is  
14:50:21 2 something you would have considered, right?

14:50:25 3 A. Well, those articles should be  
14:50:26 4 there. I don't think it is -- I don't know what  
14:50:28 5 you mean by considered. It wouldn't really  
14:50:31 6 affect my conclusion.

14:50:32 7 But, yes, the articles should be in  
14:50:35 8 there if they exist.

14:50:35 9 (Whereupon, previously marked  
14:50:35 10 Exhibit 445, first referral.)

14:50:43 11 BY MR. BEDNAR:

14:50:43 12 Q. I'm going to show you an exhibit  
14:51:03 13 that is marked Plaintiff's Exhibit 445.  
14:51:11 14 Exhibit 445 is notes of an interview of defendant  
14:51:14 15 Guy Elliot from March 2013 created by two  
14:51:20 16 employees of Rio Tinto.

14:51:22 17 Have you ever seen this exhibit  
14:51:24 18 before today?

14:51:25 19 A. No. It looks to be an internal  
14:51:28 20 document and for studying what the market wants.

14:51:40 21 Q. I'll take you to the second page of  
14:51:44 22 that exhibit. A little more than halfway down  
14:51:47 23 the page there is a paragraph in which Mr. Elliot  
14:51:49 24 is described as saying, "Success was ultimately  
14:51:54 25 growth and getting the deal done. It was

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14:51:56 1 generally thought that the bid tactics were well  
14:52:00 2 done.

14:52:00 3 "The two major shareholders had  
14:52:02 4 tried to secure better JV or supply contract  
14:52:05 5 terms, but eventually just surrendered their  
14:52:07 6 shares like everyone else."

14:52:09 7 Do you see that?

14:52:10 8 A. Yes.

14:52:12 9 MR. KIRSCH: I know you said you  
14:52:13 10 haven't seen this before. If it would be  
14:52:15 11 helpful for you to read the document, feel  
14:52:17 12 free to do that before you answer any  
14:52:19 13 questions.

14:52:21 14 THE WITNESS: No. I mean, it is  
14:52:22 15 just that I was talking -- my report is about  
14:52:25 16 what market participants saw. This is an  
14:52:28 17 internal document and an interview of  
14:52:32 18 someone's perspective. But, please feel free  
14:52:34 19 to ask me anything you wish.

14:52:45 20 BY MR. BEDNAR:

14:52:45 21 Q. So, did you come across any news in  
14:52:47 22 preparing your event study that would contradict  
14:52:49 23 this statement that CSN and Tata tried to secure  
14:52:54 24 better JV or supply contract terms?

14:52:59 25 A. I think you asked that question

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14:53:01 1 before. Same answer. I don't recall any of the  
14:53:03 2 news articles I found that would be in there.

14:53:05 3 They are of course news to the  
14:53:09 4 public, not necessarily what an internal person  
14:53:12 5 they know.

14:53:12 6 But, if it is real news and it is in  
14:53:14 7 the news outlet, I should know.

14:53:14 8 (Exhibit Number 1215  
14:53:14 9 marked for identification.)

14:53:18 10 BY MR. BEDNAR:

14:53:18 11 Q. So, this is Exhibit 1215. It is an  
14:53:21 12 article dated April 8, 2011 in the Financial  
14:53:25 13 Review.

14:53:25 14 Do you see that?

14:53:26 15 A. I do.

14:53:28 16 Q. This is an article that is cited in  
14:53:30 17 your report.

14:53:31 18 A. Okay.

14:53:32 19 Q. The Financial Review, is that a  
14:53:34 20 major business publication in Australia?

14:53:36 21 A. It is.

14:53:37 22 Q. Towards the bottom of the page, the  
14:53:54 23 paragraph reading CSN -- starts with CSN.

14:53:59 24 "Financial Review notes that CSN has  
14:54:02 25 no off-take agreements with Riversdale and has

**CONFIDENTIAL**

14:54:06 1 been seen as a likely seller of its 19.9 percent  
14:54:11 2 stake, but the company has indicated that it has  
14:54:14 3 no immediate plans to sell and will likely hang  
14:54:17 4 on until it can secure the 300,000 tons to  
14:54:21 5 400,000 tons a year of coking coal it requires to  
14:54:24 6 feed its Brazilian steelmaking operations."

14:54:28 7 Do you see that?

14:54:29 8 A. I do.

14:54:29 9 (Exhibit Number 1148  
14:54:29 10 marked for identification.)

14:54:29 11 BY MR. BEDNAR:

14:54:29 12 Q. And then I will take you to  
14:54:44 13 Exhibit 1148. This is an analyst report released  
14:54:55 14 by Dolmen Daily, dated April 8, 2011.

14:54:58 15 Do you see that?

14:54:59 16 A. I do.

14:55:00 17 Q. And you discuss that report in your  
14:55:04 18 report, right?

14:55:05 19 A. I believe so, yes.

14:55:06 20 Q. And let me take that down for a  
14:55:15 21 moment just so I can pull you up to the correct  
14:55:18 22 page.

14:55:26 23 And it is on Page 1 of Exhibit 1148.  
14:55:32 24 The box in the middle where it says Rio Tinto  
14:55:41 25 buy. And, fair to say that that paragraph

**CONFIDENTIAL**

14:55:44 1 describes the Rio Tinto acquisition of  
14:55:51 2 Riversdale. Right?

14:55:52 3 A. Yes, sir.

14:55:54 4 MR. KIRSCH: You can read the  
14:55:55 5 paragraph, Glenn, of course, before you  
14:55:59 6 answer the questions.

14:56:00 7 BY MR. BEDNAR:

14:56:01 8 Q. Take your time.

14:56:02 9 A. It is fine.

14:56:04 10 Q. Towards the middle of the paragraph,  
14:56:07 11 Dolmen says, "We viewed today's news of Rio  
14:56:11 12 Tinto's majority stake as a positive of the  
14:56:13 13 diversified miner."

14:56:14 14 Do you see that, right?

14:56:15 15 A. Yes.

14:56:16 16 Q. And I want to ask you about the next  
14:56:18 17 sentence which says, "Also, the manner in which  
14:56:20 18 Rio gained control of Riversdale is an added  
14:56:25 19 bonus as it increased its stake without defense  
14:56:30 20 from other shareholders." Do you see that?

14:56:32 21 A. I see that.

14:56:33 22 Q. So, would you agree that on  
14:56:34 23 April 8, 2011, the manner in which Rio Tinto  
14:56:37 24 gained control of Riversdale without having to  
14:56:40 25 buy shares from CSN and Tata, that was news that

**CONFIDENTIAL**

14:56:45 1 day. Correct?

14:56:46 2 MR. KIRSCH: Objection.

14:56:47 3 THE WITNESS: I don't think so. I  
14:56:50 4 see this is that analyst's view. I don't  
14:56:53 5 know whether the analyst changed price  
14:56:55 6 targets or anything else as a result of this  
14:56:56 7 news. I don't recall.

14:56:57 8 But, you can't make the leap you  
14:56:59 9 just made, if that is your question.

14:57:00 10 BY MR. BEDNAR:

14:57:05 11 Q. Did you -- let me ask you a new  
14:57:10 12 question.

14:57:10 13 In the work that you did in  
14:57:20 14 preparing your report, were you able to reach a  
14:57:26 15 conclusion one way or the other as to whether the  
14:57:29 16 fact that Rio Tinto gained control without buying  
14:57:32 17 shares from CSN or Tata had been forecast prior  
14:57:40 18 to April 8th?

14:57:45 19 MR. KIRSCH: Objection.

14:57:46 20 THE WITNESS: I don't recall  
14:57:46 21 studying that particular point. I'm  
14:57:48 22 certainly not sure why I would, but I don't  
14:57:53 23 recall that, no.

14:57:53 24 BY MR. BEDNAR:

14:57:54 25 Q. And so the news reports that you did

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14:57:56 1 cite -- and I will take this down. I don't have  
14:57:58 2 other questions about this right now.

14:57:59 3 The news articles that you did look  
14:58:02 4 at, were those the result of some sort of  
14:58:07 5 systematic search of databases?

14:58:10 6 A. Yes. Where I do news by the  
14:58:13 7 analysts in each case there, are searches either  
14:58:16 8 of universes or key words. Very different from  
14:58:22 9 Dr. Metz.

14:58:22 10 Q. Okay. And the searches that you ran  
14:58:26 11 across the Factiva database produced many of the  
14:58:30 12 news articles that are cited in your Appendix B,  
14:58:36 13 is that right?

14:58:37 14 A. Yes, sir.

14:58:37 15 Q. And would you agree with me that  
14:58:40 16 your systematic search of Factiva, that began on  
14:58:44 17 March 28th, right?

14:58:45 18 A. I don't recall the exact date. Do I  
14:58:47 19 need to know for this question?

14:58:51 20 Q. Well, I'm asking if that was your  
14:58:53 21 methodology.

14:58:57 22 Do you know where that would be  
14:58:59 23 described in your report?

14:59:00 24 A. No, that would take a little while.  
14:59:01 25 If this is important --

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14:59:14 1 Q. If I can direct you, I will pull it  
14:59:16 2 up on the screen.

14:59:17 3 A. Okay.

14:59:18 4 Q. Your report, which is Exhibit 224.  
14:59:20 5 I will pull it up for you. It is Page 29 of the  
14:59:24 6 PDF.

14:59:25 7 A. Okay. That is what I was looking  
14:59:27 8 for, yes.

14:59:27 9 Q. Yes. Footnote 121.

14:59:31 10 A. Yes.

14:59:31 11 Q. Do you agree with me that  
14:59:34 12 Footnote 121, does that describe the methodology  
14:59:37 13 that you and your team applied to search for news  
14:59:40 14 within Factiva?

14:59:41 15 A. Yes, sir, that does.

14:59:47 16 Q. And your search applied search terms  
14:59:51 17 to Factiva for different periods beginning  
14:59:55 18 March 28th, correct?

14:59:56 19 A. That's correct.

14:59:56 20 Q. Okay. And, so did your team apply  
15:00:02 21 any systematic searches of Factiva for periods of  
15:00:08 22 time before March 28th?

15:00:13 23 A. For this purpose no. We have a  
15:00:17 24 timeline that goes back to the beginning. But,  
15:00:19 25 no, not for this purpose.

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15:00:21 1 Q. Okay. Dr. Hubbard you are familiar  
15:00:40 2 with the term, control premium, right?

15:00:42 3 A. Yes.

15:00:43 4 Q. In the context of mergers and  
15:00:45 5 acquisitions, what is a control premium?

15:00:48 6 A. Well, it is actually a good  
15:00:51 7 question. Sometimes people just refer to it as  
15:00:55 8 just a premium from taking over the company that  
15:00:59 9 can enable you to change strategy. Maybe it  
15:01:03 10 would be within the products of control.

15:01:05 11 Sometimes that gets conflated in discussions with  
15:01:08 12 synergies that can also account for premium in a  
15:01:12 13 transaction.

15:01:13 14 But, some people use the word,  
15:01:17 15 control premium, to cover all of the above.

15:01:23 16 Q. Do you have a definition that you  
15:01:24 17 view as correct?

15:01:29 18 A. Well, control premium depends on  
15:01:32 19 different countries, different times. It depends  
15:01:36 20 on what you mean by control.

15:01:38 21 If it means private benefits of  
15:01:40 22 control, that is very different from changing  
15:01:43 23 strategy. And I think changing strategy is being  
15:01:46 24 lumped into synergies and other things.

15:01:48 25 Q. Okay. So, when you talk about the

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15:01:50 1 private benefits of control in connection with  
15:01:52 2 the control premium, what do you mean?

15:01:54 3 A. In other words that I may pay for an  
15:01:59 4 asset in order to get private benefits of control  
15:02:02 5 dissipated from my own personal purposes as the  
15:02:05 6 leader or to be inefficient in how I run things.

15:02:09 7 Q. Okay. And then synergies, what does  
15:02:17 8 synergies mean in this context?

15:02:19 9 A. Synergy would mean a gain from the  
15:02:21 10 combination of two firms. And of course to the  
15:02:23 11 extent that one pays more than the market price  
15:02:26 12 for something, it must be a belief that it is  
15:02:29 13 worth more in the hands of the buyer.

15:02:31 14 And the question is why use that.  
15:02:34 15 Often people argue for synergies, and thus  
15:02:38 16 economists think most, if not all, synergies wind  
15:02:41 17 up being captured by the target rather than the  
15:02:47 18 goal.

15:02:54 19 Q. You say most economists are of the  
15:02:56 20 view that -- did you say synergies are most, if  
15:03:01 21 not all, value from synergies is captured by the  
15:03:05 22 target. Is that what you said?

15:03:06 23 A. Yes, those are empirical studies  
15:03:09 24 that -- it is often an expression that  
15:03:12 25 managements often overpay or barely cover what an

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15:03:17 1 asset is. That comes from a literature in  
15:03:21 2 finance going back some decade.

15:03:22 3 Q. Is that your view?

15:03:24 4 A. It depends on the -- it depends on  
15:03:26 5 the company that is the physical evidence. You  
15:03:31 6 know, studies like Andrade, Mitchell and Stafford  
15:03:37 7 would define that. Other statistical studies  
15:03:39 8 going all of the way back to Paul Aspit's work in  
15:03:43 9 the 1980's on that.

15:03:44 10 That is probably a pretty general  
15:03:48 11 deal, but obviously any given deal is its own  
15:03:52 12 deal.

15:03:52 13 Q. So, your view on whether the  
15:03:57 14 acquiring firm can capture any of the value of  
15:04:01 15 synergies, does that depend on the specific facts  
15:04:06 16 of each instance?

15:04:08 17 A. My view on that subject is  
15:04:11 18 irrelevant to this case.

15:04:13 19 So I'm not sure -- I don't really  
15:04:18 20 need -- it has nothing to do with what I did in  
15:04:21 21 this case. And I have already told you my view  
15:04:23 22 of your own experts. So, I told you what my view  
15:04:27 23 is. It is just not germane to this case.

15:04:30 24 Q. No, I think you told me what the  
15:04:32 25 views of several economists that had published

**CONFIDENTIAL**

15:04:35 1 articles is.

15:04:35 2 What is your view as to whether the  
15:04:37 3 acquiring firm can capture value from synergies?

15:04:44 4 MR. KIRSCH: Objection. I thought I  
15:04:46 5 did hear his answer, but please go ahead and  
15:04:49 6 answer again.

15:04:49 7 THE WITNESS: I answered that, but I  
15:04:50 8 will answer it again. I said two things.  
15:04:52 9 One is that every deal is its own deal. You  
15:04:55 10 can't necessarily think that every deal is  
15:04:57 11 the same. But the economic literature is  
15:04:59 12 pretty clear, that not most of the gains go  
15:05:02 13 to the target.

15:05:03 14 But, obviously there are going to be  
15:05:06 15 deals that are the exception.

15:05:10 16 BY MR. BEDNAR:

15:05:11 17 Q. You also referred to control premium  
15:05:12 18 being associated with the change in strategy.

15:05:14 19 What did you mean by that?

15:05:17 20 A. Well, there was one thing -- one  
15:05:19 21 reason I might be able to or willing to pay more  
15:05:22 22 for a company in its current market price is  
15:05:27 23 there are assets that I think I could do  
15:05:29 24 something different with and maybe increase  
15:05:32 25 value.

**CONFIDENTIAL**

15:05:32 1 So, sometimes people group that  
15:05:35 2 under control premium because I can't do that  
15:05:37 3 until I wrest that out of the hands of somebody  
15:05:39 4 else.

15:05:39 5 But, you could also think about it  
15:05:41 6 as a synergy game. But that is -- you are trying  
15:05:44 7 to explain why you would pay more for an asset  
15:05:47 8 than its current market price.

15:06:01 9 Q. If a company pays a control premium  
15:06:04 10 that is lower than the average premium paid for  
15:06:11 11 acquisitions in its industry, does that provide  
15:06:13 12 any information about whether the firm has  
15:06:16 13 captured value from the acquisition?

15:06:23 14 A. If I am understanding your question,  
15:06:26 15 I am not sure, because it depends on the facts  
15:06:29 16 and circumstances of that time versus other  
15:06:32 17 transactions. So, I'm not sure is my answer to  
15:06:39 18 that.

15:06:46 19 Q. Would you agree that a control  
15:06:48 20 premium that is particularly large relative to  
15:06:51 21 other acquisitions in the industry may indicate  
15:06:55 22 that the acquiring firm has failed to capture  
15:06:58 23 value from the acquisition?

15:07:02 24 MR. KIRSCH: Objection, vague.

15:07:03 25 THE WITNESS: It depends. I mean

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15:07:07 1           there is an all else equal that you didn't  
15:07:09 2           say in events when holding constant the time  
15:07:13 3           period and everything else.

15:07:14 4                   It could be that some acquirers are  
15:07:17 5           just simply more talented integrating other  
15:07:20 6           assets, and it could be that other acquirers  
15:07:28 7           simply overpay.

15:07:28 8                               (Exhibit Number 1210  
15:07:28 9                               marked for identification.)

15:07:28 10 BY MR. BEDNAR:

15:07:32 11           Q.     I'm going to show you Exhibit 1210,  
15:07:36 12           which is an expert report submitted in this case  
15:07:39 13           written by Mr. Robert Edwards on behalf of the  
15:07:42 14           defendants.

15:07:42 15                   Have you seen this report before?

15:07:45 16           A.     I have not.

15:07:56 17           Q.     Taking you to Page 34 of the PDF,  
15:08:03 18           which is Page 31 of the report.

15:08:11 19                   Paragraph 77, Mr. Edwards writes  
15:08:17 20           that, "Rio Tinto ultimately acquired a  
15:08:21 21           controlling stake of Riversdale by offering  
15:08:27 22           16 Australian dollars and \$0.50 per share, which  
15:08:31 23           represented a 28 percent premium to the volume-  
15:08:34 24           weighted average trading price of Riversdale's  
15:08:38 25           shares during the month ending December 3rd, 2010,

208

CONFIDENTIAL

15:08:41 1 before the market learned about the negotiations  
15:08:43 2 with Rio Tinto."

15:08:43 3 Did I read that correctly?

15:08:46 4 A. Yes.

15:08:48 5 Q. Did you do anything to estimate the  
15:08:52 6 control premium that Rio Tinto paid in acquiring  
15:08:55 7 Riversdale?

15:08:56 8 A. I think I refer to it in some of the  
15:09:00 9 similar types of calculations in my report, but  
15:09:03 10 it is obviously not a focus for me.

15:09:05 11 Q. Okay. Did your analysis conflict  
15:09:10 12 with Mr. Edwards' calculation of the control  
15:09:13 13 premium?

15:09:14 14 A. First time I'm seeing it. I don't  
15:09:17 15 really recall the numbers but not to my  
15:09:19 16 knowledge.

15:09:28 17 Q. And then I will take you to Page 36,  
15:09:37 18 Paragraph 83. And then -- sorry. Paragraph 85,  
15:09:46 19 at the bottom of the page, which carries over to  
15:09:51 20 the next page.

15:09:51 21 Mr. Edwards writes that, "A number  
15:09:53 22 of studies in different industries show that the  
15:09:56 23 average control premium paid for publicly traded  
15:09:59 24 companies are in the range of 25 to 50 percent of  
15:10:03 25 the trading price of the associated shares on the

**CONFIDENTIAL**

15:10:06 1 dates before the initial offer is made."

15:10:11 2 Do you have any reason to doubt that  
15:10:13 3 information provided by Mr. Edwards?

15:10:16 4 A. I don't know the context here.  
15:10:19 5 Obviously there are things in the industry.

15:10:21 6 But, that range doesn't sound right  
15:10:26 7 to me.

15:10:26 8 Q. And then the very next sentence of  
15:10:28 9 Paragraph 85, Mr. Edwards concludes that, "In the  
15:10:31 10 metals and mining sector the average premium paid  
15:10:33 11 between 2006 and 2016 was estimated to be  
15:10:36 12 35.8 percent."

15:10:37 13 Do you see that?

15:10:39 14 A. I see that.

15:10:40 15 Q. So, if Mr. Edwards is correct that  
15:10:43 16 the average control premium is 35.8 percent in  
15:10:47 17 the industry, during that time period, and Rio  
15:10:51 18 Tinto paid a 28 percent control premium, Rio  
15:10:54 19 Tinto's premium would have been substantially  
15:10:56 20 below the industry average. Correct?

15:10:58 21 MR. KIRSCH: Objection.

15:11:00 22 THE WITNESS: I don't know where you  
15:11:02 23 are headed with this, but I can't say that  
15:11:03 24 because I don't know. I would want to weight  
15:11:06 25 it toward the middle of the time period when

**CONFIDENTIAL**

15:11:09 1 the actual contract was to compare them at a  
15:11:12 2 point in time.

15:11:12 3 But, we are certainly in the range.  
15:11:15 4 I don't know one way or the other. Sounds  
15:11:16 5 like a good question for you to ask  
15:11:20 6 Mr. Edwards.

15:11:20 7 BY MR. BEDNAR:

15:11:20 8 Q. Okay. And so, if you were to try  
15:11:22 9 and compare Rio Tinto's control premium that it  
15:11:24 10 paid for Riversdale, what would be a useful way  
15:11:28 11 for you to compare that to an industry average?

15:11:31 12 A. I think I did offer some comparisons  
15:11:35 13 in the report, I don't remember. If this is  
15:11:37 14 important, maybe you should find it. Or, if not,  
15:11:40 15 I can give you a quicker answer.

15:11:42 16 Q. For present purposes I would like  
15:11:45 17 you to just say what you would do to compare it  
15:11:50 18 to the industry average.

15:11:51 19 A. Well, you would try to look at  
15:11:53 20 transactions that are, you know, close in time.  
15:11:55 21 It could be the premium used to be a lot higher  
15:11:59 22 or lower years ago than they are right now.

15:12:01 23 I have no reason to believe that  
15:12:02 24 that is a problem for him here. I haven't seen  
15:12:05 25 this report. Again, for that question I think

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15:12:09 1 you should ask him.

15:12:09 2 (Exhibit Number 1118

15:12:09 3 marked for identification.)

15:12:09 4 BY MR. BEDNAR:

15:12:45 5 Q. I want to put up Exhibit 1118, which  
15:12:48 6 is Exhibit 7 to your report.

15:13:17 7 Do you have that in front of you,  
15:13:19 8 Doctor?

15:13:19 9 A. I do.

15:13:24 10 Q. The probabilities in Column B, did  
15:13:25 11 you derive those probabilities as a result of any  
15:13:29 12 calculation?

15:13:30 13 A. I think you could surmise that I  
15:13:32 14 didn't because they are clearly just rising by  
15:13:36 15 10 percent. It just presents a tableau and you  
15:13:40 16 can find wherever you want to be.

15:13:43 17 Q. And, did you follow any standard  
15:13:54 18 from peer-reviewed academic literature for  
15:13:58 19 assessing the probability of Rio Tinto gaining  
15:14:01 20 control on April 7, 2011?

15:14:09 21 MR. KIRSCH: Objection.

15:14:10 22 THE WITNESS: That is not necessary  
15:14:11 23 here. This is taking Dr. Metz's point  
15:14:13 24 estimate, converting it to dollars. And then  
15:14:16 25 saying depending on what you believe the

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15:14:20 1 probability of control would be -- of taking  
15:14:22 2 control would be, what the implied change in  
15:14:24 3 market value is.

15:14:26 4 As you can tell they are all silly.  
15:14:29 5 They go from silly to crazy.

15:14:40 6 BY MR. BEDNAR:

15:14:40 7 Q. And are you expressing an opinion on  
15:14:42 8 what a correct percentage probability is?

15:14:48 9 A. Well, I think we could agree it is  
15:14:50 10 between 0 and 100. All of the numbers here were  
15:14:55 11 crazy. That is about all I can say. It is a  
15:14:58 12 head scratcher, again, Dr. Metz's report.

15:15:02 13 Q. So, you are not expressing an  
15:15:04 14 opinion on what a correct probability is, other  
15:15:06 15 than the range 0 to 100?

15:15:09 16 A. That's correct. I don't need to  
15:15:11 17 illustrate the silliness that is on this study.

15:15:23 18 Q. Where you list assumed probability  
15:15:29 19 of Rio Tinto gaining control on April 7, 2011, is  
15:15:35 20 the concept that you are expressing there simply  
15:15:38 21 the probability of Rio Tinto gaining control at  
15:15:40 22 all?

15:15:42 23 A. Well, no, I think it is more  
15:15:47 24 specific. Let's go back to what this is about.

15:15:49 25 So, Dr. Metz produces a point

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15:15:53 1 estimate. He says wow, it is increasing, it is  
15:15:57 2 3 percent. So, we can calculate what that is in  
15:15:59 3 dollars.

15:16:00 4 Then it depends well, if he really  
15:16:01 5 didn't think there was any chance of gaining  
15:16:04 6 control, then his point estimate he, not me, is  
15:16:09 7 called that, the control gain for the company,  
15:16:12 8 that would be \$4.2 billion.

15:16:14 9 If you think that, well, people are  
15:16:17 10 already thinking they get control anyway, the  
15:16:20 11 implied value is very large fast.

15:16:22 12 Even if you want to make it 0, these  
15:16:24 13 numbers are just crazy.

15:16:26 14 Q. Does column --

15:16:27 15 A. It is another way of saying his  
15:16:29 16 point estimate is crazy.

15:16:31 17 Q. Column C, does that represent the  
15:16:35 18 value of Riversdale to Rio or the value of  
15:16:38 19 control?

15:16:40 20 A. Well, Dr. Metz would call it the  
15:16:42 21 same thing. So what Dr. Metz says his point  
15:16:45 22 estimate is doing is telling you that is the gain  
15:16:49 23 from control, Dr. Metz, not me -- Dr. Metz says  
15:16:53 24 that is the gain from control for the Rio Tinto  
15:16:56 25 shareholder.

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15:16:56 1 And that is a pretty good  
15:16:58 2 transaction. Because if it went from 0 -- even  
15:17:00 3 at 0 percent assumed probability, the value of  
15:17:04 4 the company goes up by even more.

15:17:06 5 So, wow, that is pretty amazing.

15:17:08 6 And then if you go down to have  
15:17:11 7 higher probabilities, the numbers get really  
15:17:13 8 silly.

15:17:14 9 So, it is just a way of saying -- I  
15:17:16 10 have told you before I don't think the exercise  
15:17:17 11 is worth doing.

15:17:18 12 This is just saying any analyst  
15:17:20 13 would have looked at this and think it was silly.

15:17:23 14 Q. Dr. Hubbard, did Dr. Metz create  
15:17:26 15 Exhibit 7 or did you?

15:17:27 16 A. Dr. Metz. I just added the  
15:17:30 17 [garbled] to it. His point estimate, converting  
15:17:32 18 it to dollars and then showing you what it means.

15:17:35 19 It is Dr. Metz, not me, who said  
15:17:37 20 this was all about estimating a gain from  
15:17:39 21 control --

15:17:41 22 Q. Dr. Hubbard, the -- I'm sorry. Are  
15:17:44 23 you finished?

15:17:45 24 A. No. I think if he had done that, he  
15:17:47 25 would have realized how silly he was.

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15:17:49 1 Q. The exhibit that is in front of you,  
15:17:52 2 who created that?

15:17:53 3 A. I created it. But, the input is  
15:17:57 4 from Dr. Metz.

15:17:59 5 Q. The column, Column C, which is  
15:18:02 6 titled total value of control, does that  
15:18:05 7 represent the value of Riversdale to Rio Tinto or  
15:18:09 8 the value of control? Or are they the same  
15:18:13 9 thing?

15:18:13 10 A. Excellent question. It is a good  
15:18:16 11 one for Dr. Metz because he confuses all of it.  
15:18:20 12 What he says, which is what I am holding him to,  
15:18:23 13 is that that is the gain from control.

15:18:25 14 And so I take his point estimate,  
15:18:28 15 which he claims is reasonable, and just convert  
15:18:30 16 it to dollars. That is all I have done.

15:18:33 17 Q. And I'm asking you for the purposes  
15:18:41 18 of this exhibit which you compiled, is the gain  
15:18:45 19 from control the same as the value of Riversdale?

15:18:51 20 MR. KIRSCH: Objection, asked and  
15:18:52 21 answered. Several different times.

15:18:54 22 Go ahead, Glenn.

15:18:56 23 THE WITNESS: It is hard because  
15:18:59 24 Dr. Metz is confused -- his writing is  
15:19:01 25 confused, I should say.

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15:19:03 1                   There is a question about whether  
15:19:05 2                   buying Riversdale is accreted. And there is  
15:19:09 3                   also a question about whether this  
15:19:11 4                   incremental news at the end tells you  
15:19:14 5                   something. Because, it is the value of  
15:19:16 6                   control. We have already been in this game.  
15:19:19 7                   I am trying to buy the company. Now I  
15:19:19 8                   finally get it.

15:19:21 9                   The only purpose of Exhibit 7 is to  
15:19:23 10                  say if you believe that, you will get numbers  
15:19:26 11                  that are wildly implausible, which probably  
15:19:28 12                  tells you, you did something wrong.

15:19:30 13 BY MR. BEDNAR:

15:19:30 14                  Q.       And do those numbers represent the  
15:19:32 15                  value of gaining control of Riversdale or the  
15:19:35 16                  value of the entire asset?

15:19:38 17                  A.       I am going with Dr. Metz. Dr. Metz  
15:19:42 18                  says they reflect the value of control. That is  
15:19:44 19                  what he says his point estimate is, along with  
15:19:48 20                  converting with the dollar.

15:19:50 21                  Q.       And you are saying that they  
15:19:52 22                  represent the incremental value of gaining  
15:19:54 23                  control or the value of the entire asset once  
15:19:57 24                  control is gained?

15:19:58 25                  A.       The former is what Dr. Metz says.

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15:20:01 1 Again, I think this is all silly --

15:20:11 2 Q. If you look at the line for  
15:20:30 3 50 percent. If the abnormal increase upon  
15:20:39 4 obtaining control with the probability of  
15:20:42 5 50 percent is 4.233 billion, how is it that the  
15:20:49 6 total value of control is twice that amount?

15:20:55 7 A. If we think about the experiment,  
15:21:00 8 the point estimate Dr. Metz is tendering is his  
15:21:04 9 estimate of the value of control.

15:21:06 10 Now, we know that the market adds  
15:21:10 11 some probability before the time, about the  
15:21:14 12 likelihood of gaining control.

15:21:16 13 So, the most charitable framework to  
15:21:21 14 Dr. Metz's calculation is you say suppose it is a  
15:21:25 15 total surprise, then you would get a very big  
15:21:28 16 number.

15:21:29 17 If you already thought it was sort  
15:21:30 18 of likely, 50 percent, you get a much bigger.

15:21:33 19 Because, remember, he had already  
15:21:34 20 baked 50 percent into the price.

15:21:38 21 It is just the way of saying, given  
15:21:40 22 his point estimate, given that the market saw a  
15:21:42 23 lot of this coming, you get numbers that don't  
15:21:45 24 make any sense.

15:21:46 25 So, you probably want to go back and

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15:21:48 1 ask for that point estimate. That is the purpose  
15:21:50 2 of the exhibit, that is all.

15:21:52 3 Q. We may come back to that, Doctor,  
15:22:21 4 I'm going to take it down for now --

15:22:28 5 Actually before I do, what I'm  
15:22:33 6 trying to ascertain is what is the interpretation  
15:22:35 7 of Column C?

15:22:38 8 A. Just what it says. So, basically if  
15:22:42 9 you believe Dr. -- two things from Dr. Metz.

15:22:45 10 One, that this coefficient he is  
15:22:48 11 estimating is the gain from getting control.  
15:22:52 12 And, second, that his point estimate is the right  
15:22:55 13 estimate of that value.

15:22:57 14 Then one can convert to dollars and  
15:23:00 15 answer these questions. So, that would be the  
15:23:02 16 value of control implied by his analysis.

15:23:05 17 All I'm doing is using his point  
15:23:08 18 estimate and his definition.

15:23:13 19 Q. Does Column C incorporate the cost  
15:23:17 20 that Rio Tinto already had sunk into acquiring  
15:23:20 21 the shares that it had?

15:23:22 22 A. No. But he is estimating, his  
15:23:27 23 account, the incremental value. I think I do a  
15:23:30 24 footnote somewhere in the report where I talk  
15:23:33 25 about the original basis and then add this to it.

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15:23:55 1 Q. And when we talk about value of  
15:23:57 2 control as represented in the exhibit that we  
15:23:59 3 just had up, is that the value of controlling  
15:24:03 4 Riversdale or the value of taking control on  
15:24:08 5 April 8th?

15:24:09 6 A. Dr. Metz is defining it as the  
15:24:12 7 latter. He is defining events that are the coup  
15:24:18 8 de grace piece of information. And it tells us  
15:24:20 9 we have this 3 percent return, abnormal return,  
15:24:24 10 so it is definitely the latter, in his words.

15:24:26 11 I don't think any of this is right.

15:24:30 12 Q. And that is because of your  
15:24:31 13 determination of what issues should be relevant  
15:24:33 14 to the court. Is that correct?

15:24:35 15 MR. KIRSCH: Objection, lack of  
15:24:36 16 foundation.

15:24:37 17 THE WITNESS: It is not -- this  
15:24:39 18 question isn't even an answer to the question  
15:24:41 19 about accretion. And even if it were an  
15:24:44 20 answer to the question about accretion, that  
15:24:47 21 question has no bearing on the ultimate  
15:24:49 22 impairment. So, it is doubly useless, if  
15:24:52 23 that answers your question.

15:25:12 24 BY MR. BEDNAR:

15:25:12 25 Q. Dr. Hubbard, is it your opinion that

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15:25:15 1 asset impairments are never relevant to a  
15:25:18 2 company's stock price?

15:25:21 3 A. Big changes -- we are moving on,  
15:25:27 4 right? This is the --

15:25:28 5 Q. We sure are.

15:25:30 6 A. Okay. No, that is certainly not  
15:25:35 7 true.

15:25:35 8 Q. In what circumstances can asset  
15:25:38 9 impairments be relevant to a company's stock  
15:25:41 10 price?

15:25:42 11 A. Well, if they happen to be  
15:25:45 12 unanticipated, important, and revealing strategic  
15:25:51 13 errors, there is a number of things. You could  
15:25:55 14 ask me facts and circumstances questions.

15:25:56 15 But, you know, it is possible.

15:26:04 16 Q. You referred to an impairment being  
15:26:10 17 important. What factors would make an impairment  
15:26:13 18 important to a company's stock price?

15:26:19 19 A. Well, it would have to be large. It  
15:26:22 20 would have to be unanticipated, possibly  
15:26:25 21 signalling other issues inside the firm.

15:26:28 22 An impairment that is very small, it  
15:26:33 23 may not move the needle. Or one where the market  
15:26:35 24 has already figured it out may not move the  
15:26:37 25 needle.

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15:26:37 1 The actual impairment is an  
15:26:39 2 accounting piece of information, a disclosure.  
15:26:42 3 But, the market may have already known it.

15:26:46 4 Q. Is there a difference between  
15:27:06 5 writing down an asset value and discounting the  
15:27:09 6 company's future earnings?

15:27:12 7 A. There may be or may not be.

15:27:25 8 Q. And what would determine the  
15:27:27 9 difference?

15:27:28 10 A. Facts and circumstances.

15:27:34 11 Q. What kind of facts and  
15:27:36 12 circumstances?

15:27:37 13 A. The time pattern of the cash flows,  
15:27:40 14 the time pattern of the investment.

15:27:53 15 Q. Is it your opinion that the  
15:27:56 16 impairment of Riversdale, the first impairment in  
15:28:00 17 January of 2013, was not a surprise to the  
15:28:02 18 market?

15:28:04 19 A. I think that is my opinion, and more  
15:28:10 20 importantly it is the view of the market  
15:28:12 21 participants that I reviewed.

15:28:21 22 Q. In terms of determining whether  
15:28:23 23 market participants are surprised, are you  
15:28:25 24 talking about looking at analysts' reports?

15:28:26 25 A. Yes, sir.

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15:28:28 1 Q. Is there any sort of standard  
15:28:32 2 methodology for ascertaining whether analysts'  
15:28:36 3 reports expressed surprise at the news?

15:28:39 4 A. It was their own commentary. It was  
15:28:44 5 whether they changed quantitative metrics of the  
15:28:46 6 price target or earnings per share.

15:28:54 7 Q. And your opinion is that the market  
15:28:56 8 was not surprised by the impairment.

15:29:04 9 Is that because you concluded that  
15:29:06 10 specific risks associated with Riversdale were  
15:29:09 11 known to the market?

15:29:12 12 A. Well, that was certainly part of it,  
15:29:16 13 but I need more.

15:29:21 14 Q. You think that one of the things you  
15:29:24 15 identify in your report is sovereign risk related  
15:29:27 16 to Mozambique. Is that right?

15:29:29 17 A. Yes. But those were things that  
15:29:31 18 were present at the beginning of the transaction.

15:29:33 19 So, when I mean more, those are  
15:29:36 20 risks that may or may not materialize.

15:29:38 21 But over time the market may come to  
15:29:41 22 form a view about the timeliness of the assets  
15:29:44 23 completion, its future cash flows, infrastructure  
15:29:44 24 and so on.

15:29:49 25 I think of more than just the

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15:29:50 1 initial risks of the project.

15:30:12 2 Q. So, what specific information was  
15:30:15 3 known within the market that in your view caused  
15:30:18 4 the market to anticipate the impairment?

15:30:22 5 A. I have an entire very lengthy  
15:30:25 6 appendix on this, going analyst by analyst, with  
15:30:30 7 news about what reviews were, unimpairment in the  
15:30:35 8 asset, what the changes, if any, were on price  
15:30:38 9 targets or pre and post impairment value rates.

15:30:44 10 Q. One of the things that you mention  
15:30:45 11 in your report is the fact that there was some  
15:30:48 12 coverage of issues related to government approval  
15:30:52 13 of barging permits. Do you remember that?

15:30:55 14 A. Yes.

15:30:57 15 Q. And, what role, if any, do you think  
15:30:59 16 that that played in causing the market to  
15:31:05 17 anticipate an impairment?

15:31:10 18 A. I can't give that a precise value.  
15:31:13 19 It is among the things that analysts commented on.

15:31:25 20 Q. Is it your opinion that it was known  
15:31:28 21 within the market that Rio Tinto could not barge  
15:31:30 22 coal? Or do you have some different opinion as  
15:31:32 23 to that issue?

15:31:33 24 MR. KIRSCH: Objection, lack of  
15:31:34 25 foundation.

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15:31:35 1 THE WITNESS: The opinions I'm  
15:31:38 2 stating are really summarizing the news of  
15:31:41 3 the analysts and their effects on price  
15:31:43 4 targets and earnings per share.

15:31:45 5 I am not reading the same  
15:31:47 6 information and putting myself in.

15:31:56 7 BY MR. BEDNAR:

15:31:56 8 Q. Did you identify any analyst who  
15:32:00 9 concluded that Rio Tinto could not barge coal on  
15:32:02 10 the Zambezi River?

15:32:04 11 A. I really don't recall.

15:32:05 12 MR. KIRSCH: Are you asking at that  
15:32:07 13 moment or ever?

15:32:09 14 BY MR. BEDNAR:

15:32:09 15 Q. Prior to January 17th, 2013?

15:32:14 16 A. No, I'm sorry, I'm asking you --

15:32:17 17 Q. Oh, sorry, yes. We will take them  
15:32:20 18 one step at a time.

15:32:21 19 Did you identify any analyst who  
15:32:24 20 stated an opinion that Rio Tinto would not ever  
15:32:27 21 barge coal on the Zambezi River?

15:32:30 22 A. I don't recall the appendix, but I  
15:32:35 23 believe it is B8 has all of my analysts'  
15:32:39 24 commentary, but I don't recall the individual  
15:32:41 25 statement.

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15:32:41 1 Q. So, any of the analysts' commentary  
15:32:44 2 that you considered as relevant to your report  
15:32:47 3 would be captured in that appendix, right?

15:32:49 4 A. Yes, because I actually had a  
15:32:52 5 systematic method for accomplishing it.

15:32:56 6 Q. You also conducted an event study  
15:33:23 7 related to certain Rio Tinto bonds for  
15:33:26 8 January 17th, 2013. Is that right?

15:33:29 9 A. Yes, sir.

15:33:33 10 Q. And you noted in your report that if  
15:33:35 11 you didn't find a statistically significant  
15:33:38 12 abnormal return in the ADR event study, that you  
15:33:42 13 wouldn't expect to find a return in a bond event  
15:33:45 14 study, right?

15:33:46 15 A. Right, because equity is more  
15:33:50 16 junior.

15:33:51 17 Q. I'm sorry. You said equity is more  
15:33:54 18 what?

15:33:54 19 A. Junior. In other words, if equity  
15:33:57 20 is not taking effect, you wouldn't expect it.  
15:34:00 21 And I didn't find any change in credit rating.  
15:34:03 22 So, I wouldn't expect to find it.

15:34:04 23 Q. Okay. Did you do a bond event study  
15:34:08 24 with respect to any other dates besides  
15:34:10 25 January 17th?

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15:34:12 1 A. No, not that I recall. Your  
15:34:15 2 allegation related to that day so that is what I  
15:34:19 3 did.

15:34:20 4 Q. If you conducted a bond event study  
15:34:22 5 with respect to any other day, would it have been  
15:34:24 6 produced in the supporting materials that came  
15:34:26 7 into your report?

15:34:27 8 A. It would have been. But, I don't  
15:34:29 9 recall doing one. There are many allegations  
15:34:33 10 about many other days. I would do it, but this  
15:34:36 11 one is your allegation.

15:34:39 12 Q. And, Doctor, I'm not asking you why  
15:34:42 13 you did or didn't do anything. I'm just asking  
15:34:44 14 you the basis of whether you did.

15:34:45 15 Did you, in conducting the  
15:34:47 16 January 17th bond event study, did you determine  
15:34:52 17 that the market for Rio Tinto bonds was  
15:34:55 18 sufficient?

15:34:57 19 A. There are many of the factors  
15:34:59 20 underlying equity market efficiency. The analyst  
15:35:03 21 coverage and so on are there.

15:35:05 22 The large issues, trading for at  
15:35:08 23 least some of the bonds occurred frequently.  
15:35:12 24 Turnover was in the range.

15:35:14 25 I didn't do a specific study.

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15:35:23 1 Dr. Metz didn't challenge whether this market was  
15:35:25 2 efficient. I just relied on those things. He  
15:35:30 3 didn't challenge it.

15:35:31 4 Q. Okay. Earlier today when we were  
15:35:34 5 talking about some basic principles for  
15:35:38 6 conducting an event study, with respect to  
15:35:40 7 determining market efficiency you talked about  
15:35:42 8 liquidity.

15:35:43 9 Did you do anything to ascertain  
15:35:45 10 liquidity in the market for the specific Rio  
15:35:48 11 Tinto bond that you studied?

15:35:50 12 A. Well, it focused -- or I'm going  
15:35:53 13 from memory, bonds.

15:35:55 14 I focus on eight that had more  
15:36:00 15 frequent trading history. Corporate bonds in  
15:36:03 16 general as a class, you know, don't trade as  
15:36:06 17 often typically as large cap equities.

15:36:09 18 So I have focused only on a subset  
15:36:13 19 of bonds. I looked at them individually. And  
15:36:15 20 then just to be belt and suspenders looked at a  
15:36:19 21 portfolio of those bonds.

15:36:30 22 Q. My question was specifically with  
15:36:32 23 respect to the bonds that you did study. Did you  
15:36:35 24 make any observations on the liquidity of the  
15:36:38 25 market for those bonds?

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15:36:41 1 A. Well, they, by constructed I think  
15:36:44 2 traded on 85 percent of the days or more. And I  
15:36:49 3 don't remember the turnover numbers in my head.  
15:36:51 4 They were low but, you know, there was trading.

15:36:56 5 The larger bonds tend to have more  
15:36:59 6 trading than the smaller ones.

15:37:02 7 Q. Yes, in terms of volume, did you do  
15:37:04 8 anything to ascertain the volume of trading in  
15:37:06 9 those bonds?

15:37:09 10 A. I did. I don't remember the numbers  
15:37:11 11 off the top of my head. It varies. Some had  
15:37:14 12 more trading than others, which is why I focused  
15:37:16 13 on the top eight and then did a portfolio  
15:37:19 14 approach.

15:37:21 15 Q. At the beginning of the day when we  
15:37:23 16 talked about event studies, you mentioned  
15:37:25 17 transaction costs like the bid-ask spread.

15:37:27 18 Did you do anything to evaluate the  
15:37:30 19 spread in the bonds that you studied?

15:37:37 20 A. I don't recall that one way or the  
15:37:38 21 other.

15:37:41 22 Q. Within the context of bond trading,  
15:38:00 23 are you familiar with the term, round lot?

15:38:09 24 A. Yes.

15:38:09 25 Q. What is a round lot in the context

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15:38:12 1 of bond trading?

15:38:13 2 A. Well, it would be -- I forget the  
15:38:15 3 exact threshold. It is not the quantity  
15:38:18 4 threshold like in shares, but a specific dollar  
15:38:21 5 amount.

15:38:29 6 MR. BEDNAR: Sorry. We have I think  
15:38:30 7 a mic on that shouldn't be.

15:38:30 8 BY MR. BEDNAR:

15:38:33 9 Q. Within the context of bond trading,  
15:38:38 10 you just defined what a round lot is.

15:38:42 11 If bonds trade in smaller increments  
15:38:45 12 is that called a small lot?

15:38:47 13 A. Typically, yes.

15:38:48 14 Q. And if bonds trade in increments  
15:38:50 15 that are other than those round lots, is it  
15:38:53 16 called an odd lot?

15:38:55 17 A. Yes.

15:38:55 18 Q. To get the same round number?

15:38:57 19 A. Yes.

15:38:58 20 Q. Do investors that trade in round  
15:39:04 21 lots or small lots, is there typically a discount  
15:39:08 22 that is involved on the price for trading in  
15:39:10 23 those lots?

15:39:11 24 A. I don't know what you mean by a  
15:39:16 25 discount. You may be asking about bid-ask

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15:39:19 1 spreads. I'm not sure.

15:39:20 2 Q. Do you know an approximate threshold  
15:39:23 3 for, at which the round lot -- or excuse me.  
15:39:28 4 That an odd lot or small lot discount would kick  
15:39:32 5 in for a corporate bond like Rio Tinto's?

15:39:37 6 A. Off the top of my head, the word,  
15:39:40 7 discount, as you are using it there may not be a  
15:39:43 8 term of art. But, no, not off the top of my  
15:39:45 9 head.

15:39:46 10 Q. Okay. Do you recall roughly was it  
15:39:47 11 100,000, 500,000 dollars?

15:39:50 12 A. I don't recall, so same answer.

15:39:53 13 Q. Okay. And, are you familiar with  
15:40:04 14 round lot increments defined in anything below  
15:40:08 15 \$100,000 in a corporate bond market for an issuer  
15:40:12 16 like Rio Tinto?

15:40:12 17 A. I don't recall, sorry.

15:40:14 18 Q. So, if a customer bought and sold  
15:40:26 19 Rio Tinto bonds during the period that you  
15:40:28 20 studied in anything other than a round lot, they  
15:40:34 21 may have paid a discount for that trade. Right?

15:40:39 22 A. I'm not sure what you mean by  
15:40:41 23 discount, but it is possible that a transactions  
15:40:45 24 costs were higher, if that is what you mean?

15:40:47 25 Q. Right, right. So, they would have

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15:40:49 1 had potentially higher -- excuse me, higher  
15:40:51 2 transaction prices for trading in round lots --  
15:40:55 3 or, excuse me, in odd lots or small lots, right?

15:40:59 4 A. Possibly, but I can't imagine what  
15:41:02 5 the question is. If the question is what is the  
15:41:04 6 fundamental value of the security.

15:41:06 7 But, it's your line of questioning.

15:41:10 8 Q. Well, for purposes of determining  
15:41:11 9 the daily returns on prices, if you have some  
15:41:16 10 trades that are occurring with higher transaction  
15:41:19 11 costs due to being odd-lot or small-lot trades,  
15:41:23 12 is that going to have an effect on your  
15:41:25 13 observations of what the daily returns are?

15:41:29 14 A. If I understand your question, I  
15:41:34 15 don't think so. They may be to an individual  
15:41:36 16 trader who is trying to.

15:41:38 17 Q. Well, if you have some trades that  
15:41:50 18 occur with higher transaction costs due to the  
15:41:53 19 size of the lot that they are sold in, and some  
15:41:56 20 trades that do not, isn't that going to affect  
15:42:03 21 the size of the daily returns that you measured?

15:42:07 22 MR. KIRSCH: Objection.

15:42:13 23 THE WITNESS: I'm not following the  
15:42:14 24 question. I certainly see that some  
15:42:16 25 investors would get less if that is the

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15:42:19 1 question.

15:42:23 2 BY MR. BEDNAR:

15:42:25 3 Q. And then in -- and that is an  
15:42:25 4 issue -- transaction costs associated with the  
15:42:27 5 size of the lot that is being traded, that is not  
15:42:31 6 an issue that applies to your equity event study  
15:42:34 7 of Rio Tinto, right?

15:42:38 8 A. No, it would not.

15:42:40 9 Q. Okay. Would you agree with me that  
15:42:44 10 a fair amount of the corporate bond market  
15:42:47 11 involves transactions with dealers?

15:42:49 12 A. Yes.

15:42:49 13 Q. What is a dealer in this context?

15:42:53 14 A. Well a dealer would be like a market  
15:42:56 15 maker. So, part of the spreads would come out,  
15:42:59 16 bid-ask spreads, in the form of discount. It is  
15:43:06 17 about the confidence and of a dealer.

15:43:07 18 Q. And, so that bid ask spread would be  
15:43:09 19 a transaction cost that is present in a  
15:43:11 20 transaction with a dealer, right?

15:43:13 21 A. Correct.

15:43:14 22 Q. And that cost may not be present in  
15:43:17 23 transactions that are between two customers with  
15:43:20 24 no dealer present. Correct?

15:43:23 25 A. Yes. Imagine very large customers

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15:43:27 1 or something like that, yes.

15:43:29 2 Q. And so, would you agree that the  
15:43:41 3 amount of trading that is occurring in the Rio  
15:43:44 4 Tinto bonds is relatively small, that the impact  
15:43:47 5 of transaction costs could move the daily returns  
15:43:53 6 that you are measuring?

15:44:01 7 A. It is possible. Some of these bonds  
15:44:03 8 may well be traded more than others, but that is  
15:44:05 9 why I looked at a portfolio.

15:44:15 10 Q. When say you looked at a portfolio,  
15:44:17 11 what do you mean?

15:44:18 12 A. I mean what I said in the report.  
15:44:19 13 So, I looked at the evaluated portfolio of the  
15:44:21 14 eight bonds that I identify.

15:44:22 15 Q. That is not the same thing as an  
15:44:26 16 industry index is it?

15:44:27 17 A. No, I'm not trying to do an industry  
15:44:30 18 index.

15:44:31 19 Q. You can do an industry index for a  
15:44:34 20 bond event study, right?

15:44:36 21 A. I wasn't sure why I would here, but  
15:44:42 22 I didn't.

15:44:46 23 MR. BEDNAR: I think if we can go  
15:44:47 24 off the record and take a short break, five  
15:44:49 25 to 10 minutes.

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15:44:51 1 THE WITNESS: Okay.

15:44:52 2 MR. KIRSCH: Sure. Of course.

15:44:53 3 Thank you.

15:44:53 4 THE VIDEOGRAPHER: We are going off  
15:44:54 5 the record. The time is 3:44 eastern.

15:44:58 6 (Recess taken -- 3:44 p.m.)

16:03:34 7 (After recess -- 4:03 p.m.)

16:03:34 8 THE VIDEOGRAPHER: We are going back  
16:03:46 9 on the record. The time is 4:03 eastern.

16:03:50 10 BY MR. BEDNAR:

16:03:52 11 Q. Dr. Hubbard, I wanted to continue  
16:03:53 12 with a few questions about the bond market.

16:03:55 13 Are you familiar with the term,  
16:03:57 14 bid-ask bounce?

16:03:59 15 A. I'm sorry. Did you say bid ask  
16:04:02 16 bounce?

16:04:02 17 Q. That's correct.

16:04:03 18 A. I have a layman's understanding,  
16:04:06 19 yes. I'm not a trader, but --

16:04:08 20 Q. What is your understanding of that  
16:04:09 21 term?

16:04:11 22 A. Just a bounce off of a -- if you  
16:04:15 23 have a high bid-ask spread, you can have bouncing  
16:04:19 24 prices. I don't know if that is in the sense of  
16:04:21 25 what you meant. If not, ask me a different --

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16:04:24 1 Q. And does that mean that you may have  
16:04:26 2 some bond trades that are executing at the bid,  
16:04:29 3 right?

16:04:30 4 A. Possible.

16:04:32 5 Q. And then other trades may execute at  
16:04:34 6 the ask, right?

16:04:35 7 A. That is also possible.

16:04:37 8 Q. And in a bond market, those spreads  
16:04:41 9 can be large relative to what you would see in  
16:04:45 10 the equity market, right?

16:04:46 11 A. That is certainly true.

16:04:49 12 Q. And so, the phenomenon of the  
16:04:55 13 bid-ask bounce means that you could have  
16:04:59 14 significant variation in the prices at which  
16:05:02 15 trades are occurring relative to the underlying  
16:05:06 16 fundamental price of the bid -- of the bond.  
16:05:08 17 Correct?

16:05:09 18 A. Maybe. But, I mean it depends on  
16:05:15 19 the size of the bid-ask -- there is nothing  
16:05:18 20 unique to the bounce. The size of the bid-ask  
16:05:21 21 spread itself is generating that. And that is  
16:05:24 22 higher for bonds than stocks, if that is your  
16:05:26 23 question.

16:05:26 24 Q. Uh-huh. What were the spreads for  
16:05:28 25 the Rio Tinto bond that you analyzed?

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16:05:30 1 A. I don't recall.

16:05:31 2 MR. KIRSCH: At what period of time?

16:05:33 3 MR. BEDNAR: During the period of  
16:05:34 4 time that --

16:05:44 5 THE WITNESS: I don't recall, sorry.

16:05:46 6 BY MR. BEDNAR:

16:05:46 7 Q. And so I think that we previously  
16:05:55 8 discussed it, but the presence of transaction  
16:05:57 9 costs related to dealers in a bond market could  
16:06:04 10 result in bond executing at prices different from  
16:06:09 11 where they would execute if the transactions were  
16:06:16 12 between two customers with no dealer. Right?

16:06:19 13 A. That is possible, yes.

16:06:20 14 Q. And, for trades that are executed  
16:06:29 15 other than in round lot increments, they may be  
16:06:34 16 executing at prices different from what they  
16:06:37 17 would execute if there weren't that round lot  
16:06:42 18 pricing in the bond market, right?

16:06:44 19 A. That is possible, too.

16:06:45 20 Q. And then, you've got prices in the  
16:06:51 21 bond event study that may be subject to that  
16:06:56 22 phenomenon found in between the bid and the ask,  
16:06:58 23 right?

16:06:59 24 A. All of that is possible, yes.

16:07:01 25 Q. And, all of that means that you may

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16:07:06 1 have standard deviations for your daily returns  
16:07:11 2 that are larger than what they would be in the  
16:07:15 3 absence of those bond market features. Right?

16:07:20 4 A. You are asking about a set of  
16:07:22 5 theoretical possibilities, right? I disagree  
16:07:25 6 that those are theoretical possibilities.

16:07:28 7 Q. And so, that means that it is  
16:07:33 8 possible that in an event study, that the bond  
16:07:36 9 market, if there are larger standard deviations,  
16:07:40 10 does that mean that the abnormal return on the  
16:07:43 11 day that you are evaluating in the event study  
16:07:47 12 would have to be correspondingly larger to  
16:07:50 13 achieve statistical significance, right?

16:07:53 14 A. As a theoretical matter that would  
16:07:55 15 be true. These are all theoretical questions.

16:07:57 16 Q. And, did you do anything to address  
16:08:02 17 how those theoretical questions would imply --  
16:08:05 18 would apply empirically to trading in the Rio  
16:08:08 19 Tinto bonds that you have studied?

16:08:11 20 A. I don't see how you could, beyond  
16:08:13 21 what I did which is look at the arguably more  
16:08:16 22 liquid securities and then look at a portfolio of  
16:08:18 23 them with fewer documents. I you would like to  
16:08:22 24 ask about a different portfolio or work that you  
16:08:25 25 have done, I'm happy to talk about it.

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16:08:27 1                   These questions are all theoretical.

16:08:29 2           Q.     And when you say that you looked at  
16:08:31 3 the relatively more liquid securities, you are  
16:08:33 4 referring to the bonds that you looked at that  
16:08:35 5 traded on 85 percent or more of the 120-day  
16:08:39 6 period that you looked at. Is that right?

16:08:40 7           A.     Yes, sir.

16:08:43 8           Q.     If there is a day -- let me ask you  
16:08:49 9 a very basic question.

16:08:50 10                   So, does that mean that for those  
16:08:54 11 bonds, they may have not traded on 15 percent or  
16:08:58 12 more of the days. Right?

16:09:00 13           A.     I think we know that is true. It is  
16:09:02 14 a possibility.

16:09:03 15           Q.     So, if there is a day where you  
16:09:05 16 don't have a price, that means that you are  
16:09:09 17 missing two observations for daily returns,  
16:09:14 18 right?

16:09:14 19           A.     That is theoretically possible.

16:09:20 20           Q.     If you don't have a bond price for a  
16:09:23 21 Thursday, that means that you can't calculate a  
16:09:25 22 daily return from Wednesday to Thursday, right?

16:09:28 23           A.     Sure, I don't know how often this  
16:09:32 24 actually happens, but these are theoretical  
16:09:34 25 possibilities.

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16:09:35 1 Q. And then if you don't have a trade  
16:09:37 2 on a Thursday, then you can't calculate a daily  
16:09:41 3 return Thursday to Friday, right?

16:09:42 4 A. If that were the case, that would be  
16:09:44 5 a problem, yes.

16:09:45 6 Q. And so, would that mean that for the  
16:09:52 7 bonds that you studied, the percentage of total  
16:09:56 8 observation that was captured would be less than  
16:09:59 9 85 percent. Correct?

16:10:00 10 A. Yes. I don't recall what the  
16:10:05 11 falloff is. It would be in the backup.

16:10:07 12 Q. Okay. But, that basic logic that  
16:10:11 13 missing one day could lead to missing more than  
16:10:14 14 one observation, that is a basic logic that you  
16:10:17 15 accept, right?

16:10:17 16 A. It is possible. I don't know how  
16:10:19 17 quantitatively important it is. But, it is  
16:10:21 18 certainly possible.

16:10:22 19 BY MR. BEDNAR:

16:10:22 20 Q. Okay. So, I'm going to -- excuse  
16:10:32 21 me, pull up Exhibit 1247.

16:10:42 22 This is a screenshot. And I'm using  
16:10:49 23 this to show you the source of information for a  
16:10:51 24 particular bond that I want to ask you some  
16:10:54 25 questions about.

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16:10:54 1 Do you see here that there is, that  
16:11:01 2 this screenshot shows information -- FINRA trace  
16:11:05 3 information for a particular Rio Tinto bond; is  
16:11:09 4 that correct?

16:11:09 5 A. Yes, sir.

16:11:09 6 (Exhibit Number 1247  
16:11:09 7 marked for identification.)

16:11:12 8 BY MR. BEDNAR:

16:11:12 9 Q. And then if we -- and I'm sorry,  
16:11:15 10 exhibit, that was Exhibit 1248.

16:11:18 11 Exhibit 1247 here shows you the  
16:11:19 12 specific security with the issuer Rio Tinto  
16:11:24 13 Finance USA and the CUSIP number for the specific  
16:11:28 14 bond at issue, correct?

16:11:29 15 A. Yes, sir.

16:11:29 16 (Exhibit Number 1248  
16:11:29 17 marked for identification.)

16:11:29 18 BY MR. BEDNAR:

16:11:30 19 Q. And then Exhibit 1248 identifies the  
16:11:33 20 source of the pricing information which is the  
16:11:35 21 FINRA trace records, correct?

16:11:47 22 A. Correct.

16:11:47 23 (Exhibit Number 1250  
16:11:47 24 marked for identification.)

16:11:48 25 BY MR. BEDNAR:

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16:11:48 1 Q. So, if you look at Exhibit 1250, and  
16:11:52 2 if you look at the line for January 17th, do you  
16:12:02 3 see that there are four trades for that  
16:12:04 4 particular bond on January 17th, correct?

16:12:06 5 A. I see that.

16:12:07 6 Q. And that means that your analysis of  
16:12:16 7 that particular bond on that particular day  
16:12:18 8 turned on four trades, right?

16:12:20 9 A. Yes, I asked the staff about this  
16:12:22 10 and of course we kept an outlier on the low end.  
16:12:26 11 And this problem could also be addressed by the  
16:12:28 12 portfolio.

16:12:28 13 So, the record is clear this is not  
16:12:30 14 a random choice on your part.

16:12:32 15 Q. Sure. What is the largest number of  
16:12:34 16 trades in any one of the Rio Tinto bonds that you  
16:12:36 17 analyzed on January 17th?

16:12:38 18 A. I really don't recall.

16:12:40 19 Q. Staying with this particular bond --  
16:12:47 20 and I'm sorry, when you say asking the staff, did  
16:12:50 21 you ask your staff about this particular bond  
16:12:52 22 after you were provided the exhibits.

16:12:53 23 Is that what you are referring to?

16:12:54 24 A. Yes, sir, because I got the exhibits  
16:12:57 25 and wondered what mischief might be made of it.

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16:12:57 1 (Exhibit Number 1249  
16:12:57 2 marked for identification.)

16:13:02 3 BY MR. BEDNAR:

16:13:02 4 Q. And then, directing you to  
16:13:06 5 Exhibit 1249, again on January 17th. That shows  
16:13:14 6 you the total volume of that transaction -- of  
16:13:17 7 those transactions, excuse me, in that Rio Tinto  
16:13:19 8 bond, \$52,000, right?

16:13:24 9 A. I see that.

16:13:25 10 Q. That is obviously less than  
16:13:28 11 \$100,000, right?

16:13:29 12 A. Yes. It would be a typical for that  
16:13:35 13 security it looks like. But, yes, less than  
16:13:37 14 \$100,000.

16:13:38 15 Q. And so, if the transaction costs for  
16:13:41 16 dealing in odd lots or small lots, those would  
16:13:45 17 apply to these trades, right?

16:13:47 18 A. They would, yes.

16:13:51 19 Q. I can take this down.

16:14:24 20 The analytical work that was done in  
16:14:26 21 preparing your bond market event study, did you  
16:14:29 22 perform that or did someone else?

16:14:32 23 A. The Analysis Group staff under my  
16:14:40 24 direction did.

16:14:42 25 Q. And you picked the bonds that trade

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16:14:51 1 the most often. Is that right?

16:14:54 2 MR. KIRSCH: Objection.

16:14:55 3 THE WITNESS: I'm not sure what you  
16:14:59 4 mean by that. Those are the ones they  
16:15:00 5 analyzed for the event study, if that is your  
16:15:02 6 question.

16:15:02 7 BY MR. BEDNAR:

16:15:04 8 Q. Sure. The ones that you analyzed  
16:15:07 9 for the event study, were those chosen on the  
16:15:10 10 basis of the bonds that traded most often?

16:15:12 11 A. Well, they crossed that threshold of  
16:15:15 12 85 percent, yes.

16:15:16 13 Q. Okay. Were there any other criteria  
16:15:18 14 for selecting which bonds to analyze?

16:15:20 15 A. No, sir.

16:15:35 16 Q. Would you agree that bonds are more  
16:15:37 17 likely to trade when there is news than when  
16:15:40 18 there is not?

16:15:42 19 Let me phrase that a little  
16:15:44 20 differently. Do you agree that bonds are more  
16:15:46 21 likely to trade when there is bond specific news  
16:15:50 22 than when there is not?

16:15:50 23 A. Generally, securities would react to  
16:15:54 24 news by having higher volume, if that is your  
16:15:56 25 question. But, news is a term of art.

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16:16:01 1 The colloquial use of the word.

16:16:04 2 Q. And what do you mean by news?

16:16:06 3 A. News, unexpected by the market. As  
16:16:12 4 far as it is an item in the news.

16:16:18 5 Q. Okay. And, so you agree that using  
16:16:20 6 that definition as news from specific news that  
16:16:24 7 is unexpected by the market, you would expect  
16:16:26 8 bonds to be more likely to trade on those days  
16:16:29 9 than on days when there is no unexpected firm  
16:16:32 10 specific news, right?

16:16:33 11 A. Yes, sir, if there were relevant  
16:16:35 12 news.

16:16:39 13 Q. And then if there is no relevant  
16:16:42 14 news on a given day, that is when bonds would be  
16:16:45 15 less likely to trade, right?

16:16:46 16 A. Well, as often with your questions  
16:16:48 17 you are forgetting to say all other things equal,  
16:16:51 18 but I will assume you meant that.

16:16:53 19 Q. For the days in your event study  
16:16:59 20 where there is no observed trade, if there had  
16:17:02 21 been an observed trade, would it be likely to  
16:17:04 22 have occurred -- excuse me, to yield a smaller  
16:17:07 23 abnormal return than on the days where there is  
16:17:12 24 news?

16:17:13 25 MR. KIRSCH: Objection.

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16:17:14 1 THE WITNESS: I'm not even sure what  
16:17:15 2 you are asking. Why don't you follow up?

16:17:19 3 BY MR. BEDNAR:

16:17:19 4 Q. Well, for instance in the equity  
16:17:22 5 market, for a firm like Rio Tinto, the trades in  
16:17:28 6 a particularly liquid market, there may be trades  
16:17:31 7 going on, on days where you can't identify any  
16:17:33 8 unexpected firm specific-news, right?

16:17:35 9 A. Sure.

16:17:36 10 Q. So, for the bond market, for the  
16:17:38 11 days where there was no observed transaction, if  
16:17:43 12 we hypothesize transactions occurring on those  
16:17:47 13 days, would you expect them to yield lower  
16:17:52 14 returns -- lower abnormal returns than on days  
16:17:56 15 where there is firm-specific news?

16:18:02 16 A. I guess I still don't understand the  
16:18:03 17 question. So I don't know, one way or the other.

16:18:06 18 Q. In a market where there are  
16:18:24 19 relatively few trades occurring for the security,  
16:18:30 20 if trades are more likely to occur on days when  
16:18:33 21 there is news, will that have an impact on the  
16:18:38 22 standard deviation of daily returns?

16:18:40 23 MR. KIRSCH: Objection, vague.

16:18:42 24 THE WITNESS: I would need more to  
16:18:45 25 understand that. Might, might not.

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16:18:55 1 BY MR. BEDNAR:

16:18:56 2 Q. Do you think that the fundamental  
16:18:58 3 value of the bond changes less when there is no  
16:19:01 4 news?

16:19:05 5 MR. KIRSCH: Objection, vague.

16:19:06 6 THE WITNESS: I don't think that is  
16:19:08 7 a very well posed question, because market  
16:19:11 8 participants may be reevaluating bonds all of  
16:19:16 9 the time.

16:19:16 10 I'm not quite sure what you are  
16:19:18 11 asking.

16:19:18 12 BY MR. BEDNAR:

16:19:55 13 Q. And you don't have an opinion as to  
16:19:56 14 whether the fundamental value of the company's  
16:20:00 15 bonds changes on -- it is more or less likely to  
16:20:05 16 change on days when there is no news?

16:20:07 17 MR. KIRSCH: Objection.

16:20:08 18 THE WITNESS: As you have asked that  
16:20:10 19 question, I wouldn't know how to answer it.  
16:20:13 20 So, no, I wouldn't have an opinion.

16:20:17 21 BY MR. BEDNAR:

16:20:17 22 Q. Are you saying that you don't  
16:20:18 23 understand the term, fundamental value?

16:20:21 24 A. I understand the term, fundamental  
16:20:23 25 value. I don't understand your question. I

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16:20:28 1 don't think it is well posed. So, I gave the  
16:20:30 2 answer I gave.

16:20:31 3 I'm not here to help you ask it.

16:20:32 4 Q. What do you understand the term,  
16:20:35 5 fundamental value, to mean?

16:20:36 6 A. Fundamental value of securities is  
16:20:39 7 its present value of cash flow.

16:20:45 8 Q. And is fundamental value influenced  
16:20:48 9 by the announcement of unexpected firm-specific  
16:20:53 10 news?

16:20:53 11 A. We are talking about a bond or a  
16:20:55 12 stock?

16:20:56 13 Q. Well, let's start with bonds.

16:20:59 14 A. It may or may not be. It could be  
16:21:02 15 news on the firm that doesn't affect the ability  
16:21:05 16 to pay a bond.

16:21:06 17 Remember the bondholders don't get  
16:21:08 18 upside. They get their money back. It could be  
16:21:11 19 a variety of pieces of news that really don't  
16:21:14 20 have much of an impact on bonds, even though they  
16:21:17 21 may have an impact on equity.

16:21:19 22 Q. So, on a day when there is no  
16:21:21 23 unexpected firm-specific news, would you expect  
16:21:24 24 there to be a change in the fundamental value of  
16:21:26 25 a company's bonds?

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16:21:28 1 A. There could well be, because there  
16:21:30 2 could be changes in market discount rates. The  
16:21:34 3 overall movements in the term structure of  
16:21:36 4 interest rates.

16:21:50 5 Q. And, so I think that your answer is  
16:21:53 6 on a day when there is no unexpected  
16:21:57 7 firm-specific news, the fundamental value of a  
16:22:00 8 company's bonds may change if there is news  
16:22:05 9 affecting the market as a whole. Is that  
16:22:09 10 correct?

16:22:10 11 A. That is not what I said.

16:22:11 12 MR. KIRSCH: Objection --

16:22:12 13 THE WITNESS: I said --

16:22:13 14 MR. KIRSCH: Object to form. Sorry.  
16:22:16 15 I was just saying objection, mischaracterizes.

16:22:19 16 THE WITNESS: I said market discount  
16:22:22 17 rates for this premium. You can imagine  
16:22:25 18 monetary policy actions or no overall view of  
16:22:29 19 risk in the corporate sector having nothing  
16:22:32 20 to do with a particular firm. Covid-19,  
16:22:36 21 there are lots of things like that.

16:22:42 22 BY MR. BEDNAR:

16:22:43 23 Q. So in the absence of news, whether  
16:22:44 24 it is defined as firm-specific news or the type  
16:22:47 25 of nonspecific news that you have just listed,

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16:22:50 1 would you expect, in the absence of any such news  
16:22:52 2 like that, for the fundamental value of a  
16:22:54 3 company's bonds to change?

16:22:56 4 A. I wouldn't think the fundamental  
16:23:03 5 value would change, no.

16:23:08 6 Q. I think I'm going to shift gears,  
16:23:31 7 Dr. Hubbard.

16:23:32 8 As a result of your study, sorry --

16:23:59 9 As a result of your work in this  
16:24:01 10 case, were you able to reach a statistical  
16:24:08 11 conclusion as to the effect on Rio Tinto's ADR  
16:24:12 12 prices of any specific piece of information that  
16:24:17 13 was disclosed on January 17th, 2013?

16:24:22 14 A. Well, if I am understanding your  
16:24:25 15 question, the effects, whether they are measured  
16:24:30 16 by Dr. Metz or by me, are statistically and  
16:24:35 17 significantly different from 0.

16:24:37 18 And so what I do is look at the  
16:24:39 19 underlying components of information.

16:24:42 20 So, I'm -- the statistical  
16:24:45 21 conclusion is clear. It is insignificant, but we  
16:24:48 22 get to go further and that is what I tried to do.

16:24:51 23 Q. Okay. Your report included a  
16:25:06 24 section related to Rio Tinto's credit rating.

16:25:09 25 And it is your opinion that if Rio

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16:25:21 1 Tinto had announced an impairment to RTM as part  
16:25:25 2 of the past year 2012 financial result, that  
16:25:29 3 there would not have been a change to Rio Tinto's  
16:25:31 4 credit rating. Is that correct?

16:25:33 5 A. That is correct. I had two opinions  
16:25:37 6 in there. One was about meeting the R price  
16:25:41 7 equity, and the other about credit rating.

16:25:46 8 Q. And with respect to the credit  
16:25:47 9 rating, is one basis for that opinion that there  
16:25:53 10 was no rating action after Rio Tinto announced  
16:25:56 11 the impairment in 2013?

16:25:58 12 A. Yes, that is correct.

16:26:00 13 Q. Is another basis for that opinion  
16:26:04 14 your interpretation of the role that impairments  
16:26:07 15 play in the quantitative methodologies of the  
16:26:10 16 main rating agencies?

16:26:12 17 A. I thought of it more as an input.  
16:26:15 18 The real issue is did they or didn't they change  
16:26:17 19 the rating. And they did not.

16:26:20 20 Q. So, in evaluating the hypothetical  
16:26:33 21 question of what would have happened to Rio  
16:26:35 22 Tinto's credit rating if an impairment had been  
16:26:39 23 announced at half year 2012, would you need to,  
16:26:47 24 as part of that analysis, look at the financial  
16:26:52 25 condition of Rio Tinto as of that time?

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16:26:57 1 A. I'm not sure what you are asking.  
16:27:00 2 Obviously financial position is critical for  
16:27:03 3 credit ratings. That is no different from equity.

16:27:07 4 In fact, some impairments might  
16:27:10 5 actually improve cash flows for debt holders for  
16:27:14 6 a period of time, while hurting equity.

16:27:16 7 Q. So, for credit rating purposes, you  
16:27:20 8 would want to look at Rio Tinto's financial  
16:27:23 9 position as of the time that you are evaluating a  
16:27:25 10 hypothetical impairment analysis. Correct?

16:27:30 11 A. Yes, that is what a rating agency  
16:27:32 12 would do.

16:27:32 13 Q. Sure. So, for instance, in January  
16:27:38 14 of 2013, prior to the announcement of the  
16:27:43 15 impairment, Rio Tinto had also been able to  
16:27:46 16 announce in the second half of 2012, the  
16:27:49 17 completion of a \$5 billion cost reduction  
16:27:55 18 program. Right?

16:27:56 19 A. It is not my understanding. I think  
16:27:59 20 they announced a \$5 billion cost reduction  
16:28:02 21 program that they are working on, which I agree  
16:28:04 22 is very positive.

16:28:12 23 Q. And so it is your view that  
16:28:14 24 announcing a program for saving \$5 billion in  
16:28:17 25 costs is positive, right?

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16:28:20 1 A. It is certainly going to bolster  
16:28:22 2 cash flows for the company.

16:28:24 3 Q. And announcing the breakdown of the  
16:28:27 4 \$3 billion asset would not be viewed as negative  
16:28:30 5 to the company?

16:28:32 6 A. Are we talking about bonds or  
16:28:34 7 stocks?

16:28:36 8 Q. Either.

16:28:40 9 A. Well, let's start with bonds. Like  
16:28:43 10 in the case of stocks that I talk about, the  
16:28:45 11 market had already borne an expectation.

16:28:49 12 And given that the debt securities  
16:28:51 13 were highly rated, there was little worry about  
16:28:54 14 the company's ability to repay the debt.

16:28:57 15 And, given that, I found no effect  
16:29:00 16 on equities, the rating agencies don't change, I  
16:29:04 17 wouldn't expect to find much of that, if at all.

16:29:08 18 Q. So, if you were to analyze the  
16:29:11 19 potential effect, for hypothetical half year 2012  
16:29:16 20 impairment announcement from Rio Tinto's credit  
16:29:19 21 rating, first of all, you need to evaluate Rio  
16:29:25 22 Tinto's financial condition before they raised  
16:29:28 23 money in their August 2012 bond offerings.  
16:29:31 24 Correct?

16:29:33 25 A. But again it depends on what

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16:29:35 1 information the market has. But, you would want  
16:29:38 2 the information available in the marketplace at  
16:29:40 3 that time, if that is your question.

16:29:41 4 Q. Yes, okay. Now, I want to make sure  
16:29:47 5 I understand one aspect of your opinion.

16:29:49 6 It is not your opinion that the  
16:29:51 7 rating agencies would never consider impairments  
16:29:55 8 in making a ratings decision, right?

16:29:57 9 A. Correct. I think I say that in the  
16:29:59 10 report.

16:30:00 11 Q. Okay. And, even if impairments are  
16:30:04 12 excluded from the quantitative measures that a  
16:30:08 13 rating agency employs, the rating committee still  
16:30:11 14 may consider the impact of the impairment and  
16:30:13 15 ascertaining whether to take any rating action.  
16:30:17 16 Right?

16:30:18 17 A. It is possible. But, they didn't  
16:30:20 18 take any rating action.

16:30:21 19 Q. In 2013, right?

16:30:25 20 A. Correct.

16:30:26 21 Q. Did you know that in April of 2011,  
16:30:35 22 Moody upgraded Rio Tinto by one notch in its  
16:30:37 23 rating?

16:30:37 24 A. I think I probably mention that in  
16:30:39 25 the report, but I don't recall the exact date.

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16:30:43 1 Q. And, that rating action was  
16:30:49 2 announced after the Riversdale acquisition.  
16:30:52 3 Right?

16:30:54 4 A. Yes.

16:30:55 5 MR. KIRSCH: Objection.

16:30:58 6 THE WITNESS: That is my  
16:30:59 7 recollection, I should say. I don't know  
16:31:00 8 exactly when it was, but that is my  
16:31:02 9 recollection.

16:31:03 10 BY MR. BEDNAR:

16:31:03 11 Q. And, do you have any basis to say  
16:31:12 12 whether the Riversdale impairment was a factor  
16:31:16 13 considered -- I'm sorry. I said impairment. Let  
16:31:19 14 me rephrase the question.

16:31:21 15 Do you have any basis to say whether  
16:31:23 16 or not the Riversdale acquisition was a  
16:31:26 17 consideration taken into account by Moody in  
16:31:31 18 upgrading the credit ratings in April of 2011?

16:31:37 19 A. I don't recall what I saw there. I  
16:31:40 20 would doubt it, since such an acquisition is  
16:31:43 21 large negative cash flows for a long period of  
16:31:45 22 time with the hope of positive cash flows in the  
16:31:48 23 future.

16:31:48 24 But, I don't think I have ever heard  
16:31:56 25 of it for equity, but I don't recall.

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16:32:02 1 Q. I wanted to ask you a question with  
16:32:17 2 respect to your analysis of so-called Altes  
16:32:28 3 statements. And, first, I want to ask you to  
16:32:31 4 pull up your report so I can have you look at  
16:32:34 5 some language.

16:32:34 6 A. Okay.

16:32:51 7 Q. And it is Exhibit 224. I will take  
16:32:57 8 you to the page first, and then I will put it up  
16:32:59 9 on the screen for you.

16:33:17 10 Paragraph 158 of Page 94 of the PDF,  
16:33:22 11 and I think Page 90 of the report itself.

16:33:25 12 A. Okay. I am there.

16:33:29 13 Q. Thanks. You wrote, "To summarize, I  
16:33:32 14 find that there is no conclusive evidence of a  
16:33:35 15 statistically significant ADR price increase on  
16:33:39 16 August 8, 2012."

16:33:41 17 And this is kind of a technical  
16:33:43 18 question.

16:33:43 19 So, you ran a regression for the  
16:33:48 20 abnormal return on August 8, 2012. And you ran  
16:33:52 21 one for using the HSBC Mining Index and one using  
16:33:57 22 your eight company comparator index. Right?

16:34:00 23 A. Correct.

16:34:01 24 Q. And, there was a statistically  
16:34:06 25 significant return using one of those indices,

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16:34:10 1 right?

16:34:11 2 A. That is correct.

16:34:11 3 Q. And do you recall as you sit here  
16:34:15 4 which one?

16:34:18 5 A. I don't. You could check, if it is  
16:34:20 6 important to you. It might be -- should I check?  
16:34:25 7 Is that important, or --

16:34:31 8 Q. I can direct you to -- just so we  
16:34:33 9 can state it clearly on the record. I don't know  
16:34:36 10 that I would say that it is important.

16:34:37 11 But, if we go back a few pages to  
16:34:40 12 Paragraph 159, which I have up on the screen.  
16:34:46 13 And in the middle of the paragraph, you say,  
16:34:50 14 "I show in Exhibit 12," and then you identify  
16:34:55 15 that "using the equal weighted peer index, there  
16:35:01 16 was not a positive abnormal return on August 8th  
16:35:04 17 that was statistically significant."

16:35:05 18 A. Okay.

16:35:06 19 Q. There is a statistically significant  
16:35:10 20 positive abnormal return using the HSBC Global  
16:35:17 21 Mining Index. Do you see that?

16:35:18 22 A. Yes.

16:35:18 23 Q. And it is statistically significant  
16:35:21 24 at the 5 percent level, right?

16:35:23 25 A. Yes, that is what I find.

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16:35:25 1 Q. And, so my question is really, in  
16:35:31 2 Paragraphs 168, where you said, "I find there is  
16:35:34 3 no conclusive evidence of a statistically  
16:35:36 4 significant ADR price increase on August 8,  
16:35:41 5 2012," is would it require both of your industry  
16:35:49 6 indices producing statistically significant  
16:35:52 7 abnormal returns for you to conclude that there  
16:35:55 8 was conclusive evidence?

16:35:59 9 A. Yes. Yes. And since I tendered  
16:36:02 10 them both, that is not really the point of this  
16:36:05 11 paragraph.

16:36:05 12 The point of the paragraph is  
16:36:06 13 whether I found statistically significant returns  
16:36:10 14 in both, it wouldn't have mattered, because I  
16:36:13 15 attributed those returns elsewhere. That was my  
16:36:15 16 analysis of the analysts' commentary. No one  
16:36:19 17 mentioned so I didn't state it.

16:36:21 18 Q. Sure. I'm really trying to  
16:36:24 19 ascertain is it your standard that both of your  
16:36:26 20 industry indices need to produce statistically  
16:36:29 21 significant abnormal returns at the 5 percent  
16:36:31 22 level, for there to be conclusive evidence that  
16:36:34 23 there is a statistically significant result?

16:36:37 24 A. Well, I think to be conclusive, yes.  
16:36:40 25 I mean part of the problem here, as

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16:36:42 1 we talked about all day, is some of the fragility  
16:36:45 2 here, which is why it is useful looking at the  
16:36:48 3 analysts' commentary. And the analysts don't  
16:36:51 4 mention the results.

16:37:01 5 Q. And let me just focus on -- not on  
16:37:04 6 analysis of analysts' commentary.

16:37:05 7 But, when you talk about conclusive  
16:37:11 8 evidence of a statistically significant price  
16:37:13 9 increase, does that require both of your industry  
16:37:15 10 indices to agree on the result before you would  
16:37:17 11 say that there is conclusive evidence of  
16:37:20 12 statistical significance?

16:37:22 13 A. You asked the question before so I  
16:37:24 14 will give the same answer. These are both  
16:37:29 15 reasonable indices.

16:37:30 16 It would concern me if I get  
16:37:32 17 different answers depending on which reasonable  
16:37:36 18 index that I use.

16:37:37 19 So, it is not conclusive. I don't  
16:37:40 20 even think it is important for the reason in the  
16:37:41 21 paragraph. It is certainly not conclusive.

16:37:45 22 Q. Does the fact that the -- in your  
16:37:47 23 conclusion -- well, let me say this:

16:37:52 24 Does the fact that the equal waited  
16:37:54 25 peer index did not experience a statistically

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16:37:56 1 significant return while the HSBC Mining Index  
16:38:03 2 did, does that say anything to you about the  
16:38:06 3 relative predictive power of either index?

16:38:12 4 A. I don't see how it could. It might  
16:38:16 5 to you, because you might be assuming that  
16:38:18 6 conclusion.

16:38:18 7 But, I don't see how it would one  
16:38:21 8 way or the other. The statement is simply that  
16:38:24 9 it is not conclusive. I think that is obvious.  
16:38:26 10 And in the rest of the paragraph it says that it  
16:38:29 11 is not important.

16:38:41 12 Q. So, is what you are saying that you  
16:38:43 13 would have reached the same conclusion if the  
16:38:45 14 results were inverted and the equal weighted peer  
16:38:48 15 index found a statistically significant return  
16:38:51 16 while the HSBC Mining Index did not?

16:38:53 17 A. Yes. And the fact that they were  
16:38:55 18 both statistically significant, I would still  
16:38:59 19 reach an unimportant conclusion.

16:39:16 20 Q. I wanted to return, if I could, to  
16:39:19 21 the definition that you provided earlier, to the  
16:39:22 22 definition of economic materiality.

16:39:24 23 Is it my understanding that your  
16:39:25 24 definition of economic materiality turns on what  
16:39:29 25 the reasonable investor would view as important?

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16:39:33 1 A. If you are talking about in the  
16:39:35 2 context of a securities case, yes. Whether a  
16:39:38 3 reasonable investor would feel important in the  
16:39:42 4 context of that would be in framing a view of  
16:39:46 5 what is paid for securities. It is really about  
16:39:48 6 the price.

16:39:51 7 Q. And so then, are you saying that  
16:39:55 8 securities prices, let's say equity prices, are  
16:40:00 9 determined by the views of reasonable investors?

16:40:03 10 A. Well, the marginal investor in the  
16:40:10 11 market that sets the price. The term, reasonable  
16:40:14 12 investor, is the investor who is using available  
16:40:17 13 information.

16:40:22 14 Q. So, reasonable investors may  
16:40:23 15 disagree with each other. Right?

16:40:25 16 A. In fact, they do all of the time.  
16:40:27 17 It is called trading.

16:40:30 18 Q. And the price is set by the marginal  
16:40:33 19 investor. Is that what you said?

16:40:34 20 A. Correct.

16:40:35 21 Q. What does that mean the marginal  
16:40:37 22 investor?

16:40:38 23 A. It means what it says, is at the  
16:40:40 24 margin, there are trades that set the price and  
16:40:45 25 great benefit of markets is that.

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16:40:47 1 So, even if somebody's grandmother  
16:40:50 2 is not an informed investor, a marginal investor,  
16:40:54 3 being informed, you still get the right price.

16:40:56 4 And so foundation of securities  
16:40:58 5 markets in our time.

16:41:03 6 Q. So, there are reasonable investors  
16:41:05 7 whose views are not captured with the stock  
16:41:08 8 price?

16:41:11 9 A. If you mean does the stock price  
16:41:13 10 represent every investor's view of fundamental  
16:41:17 11 value? Of course not. That is what trading is  
16:41:19 12 about.

16:41:19 13 Q. Okay. Doctor, I wanted to kind of  
16:41:25 14 do an inventory to make sure that I have properly  
16:41:30 15 understood the scope of additional work that you  
16:41:33 16 have performed that is not captured in your  
16:41:37 17 report.

16:41:37 18 And I can take the report down  
16:41:39 19 because I don't think that we need to refer to  
16:41:41 20 it.

16:41:41 21 I know that you referred to  
16:41:46 22 sensitivity analysis that you did related to the  
16:41:50 23 HSBC Mining Index.

16:41:52 24 A. Yes, sir.

16:41:53 25 Q. And was that done after you received

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16:41:58 1 the Metz rebuttal report or after Dr. Metz  
16:42:02 2 testified?

16:42:03 3 A. After his deposition.

16:42:04 4 Q. Okay. I know that you also  
16:42:06 5 testified to running a sensitivity of what would  
16:42:08 6 happen if you removed Newmont Mining from the  
16:42:15 7 eight company comparator index. Right?

16:42:17 8 A. Yes.

16:42:19 9 Q. And I think that we already covered  
16:42:21 10 this. I just want to make sure. That was the  
16:42:23 11 only sensitivity that you ran on that date,  
16:42:27 12 number, index, right?

16:42:28 13 A. Yes, because that is the criticism I  
16:42:30 14 thought Dr. Metz had made. Why don't we just  
16:42:32 15 check, but yes, sure.

16:42:33 16 Q. Yes. Just trying to make sure that  
16:42:35 17 I have the list correct of additional  
16:42:37 18 sensitivities.

16:42:38 19 You didn't do any sensitivity  
16:42:40 20 analyses that built on the 16 company list that  
16:42:43 21 Dr. Metz talked about, right?

16:42:45 22 A. I may have. I think I may have done  
16:42:48 23 some changes there that didn't affect my results,  
16:42:52 24 but I don't recall.

16:42:54 25 Q. If you did additional analyses that

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16:43:02 1 didn't affect your results, would your team have  
16:43:05 2 the regressions that you ran?

16:43:06 3 A. Of course.

16:43:09 4 Q. And did you at any time since you  
16:43:15 5 submitted your report, have you run regressions  
16:43:19 6 using any variation of the S&P Metals and Mining  
16:43:23 7 Index?

16:43:25 8 A. Oh, let's see. I think I -- I think  
16:43:30 9 the answer surely is yes. And I don't remember  
16:43:34 10 everything that I did.

16:43:35 11 Because again I don't think that  
16:43:37 12 index is fixable. But, I think I did do some  
16:43:40 13 things and it didn't fix it in my view. But, I  
16:43:43 14 don't recall. If we have it, we have it.

16:43:46 15 Q. Okay. You don't remember at all  
16:43:49 16 what kind of analysis that would have been on the  
16:43:51 17 S&P index?

16:43:54 18 A. I don't recall. I'm sorry.

16:43:56 19 Q. At any time in your work on this  
16:44:00 20 case have you done any regressions where you  
16:44:03 21 added one or more commodities prices to your  
16:44:06 22 regression?

16:44:09 23 A. To the event study regression, you  
16:44:12 24 mean?

16:44:13 25 Q. Correct.

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16:44:14 1 A. I don't recall doing that, no.

16:44:15 2 Q. Have you done any other regressions  
16:44:27 3 after the submission of your report beyond what  
16:44:29 4 we have just catalogued here?

16:44:33 5 A. No, unless there was something this  
16:44:35 6 morning that -- I outlined it all this morning  
16:44:38 7 with the first question.

16:44:39 8 Q. Okay. We have talked a number of  
16:44:48 9 times about the work that you and your staff had  
16:44:50 10 done in preparing the report.

16:44:52 11 Can you tell me the role, if any,  
16:44:54 12 that your staff played in writing the report?

16:45:00 13 A. I wrote the report. But, obviously  
16:45:03 14 received enormous amounts of -- as you can tell  
16:45:07 15 much of this report is the appendices, the data,  
16:45:11 16 the exercises.

16:45:12 17 But, the actual words on the report  
16:45:14 18 are me. But, many more hours are spent by staff  
16:45:18 19 in theory.

16:45:18 20 Q. Sure. Did your staff draft any  
16:45:20 21 portions of the report?

16:45:23 22 A. We certainly passed things back and  
16:45:27 23 forth if they would comment.

16:45:28 24 But, I am the principal  
16:45:31 25 draftsman. Although I didn't personally do

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16:45:33 1 all of the tables, though.

16:45:34 2 Q. Uh-huh. Your report has several  
16:45:48 3 indices that have summaries of news coverage or  
16:45:51 4 analyst coverage. And an example would be  
16:45:56 5 Appendix C2, which summarizes news coverage of  
16:46:00 6 the Riversdale bid in the actual acquisition.

16:46:03 7 Who compiled Appendix C2? Or if it  
16:46:11 8 is easier for you to talk about how the  
16:46:13 9 appendices in general were complied, you could  
16:46:16 10 answer that way.

16:46:17 11 A. Yes, that may be a good place to  
16:46:19 12 start and then we can go into the individual ones  
16:46:21 13 if you want.

16:46:21 14 So, in each case there was a  
16:46:23 15 question I was trying to ask, and I sat with the  
16:46:26 16 team to figure out what is a systematic way to  
16:46:29 17 answer.

16:46:29 18 And in each case we needed, how do  
16:46:32 19 you make sure you get all available analysts.  
16:46:35 20 How do you make sure that you are doing a new  
16:46:38 21 search that is not subject to any cherry picking.  
16:46:42 22 So, there is key words, things you are doing.

16:46:44 23 In each of those cases we came to  
16:46:46 24 that agreement of the team and of course the  
16:46:48 25 year, in searching.

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16:46:49 1 Q. Okay. If it is helpful to you, I  
16:46:59 2 can pull these exhibits up.

16:47:00 3 But, with respect to Appendix C.8 in  
16:47:03 4 Exhibit 10.

16:47:06 5 A. C.8?

16:47:06 6 (Exhibit Number 1108  
16:47:06 7 marked for identification.)

16:47:06 8 BY MR. BEDNAR:

16:47:08 9 Q. Yes. Appendix C.8 is  
16:47:11 10 Exhibit 1101 [sic]. And I can go ahead and pull  
16:47:13 11 it up so everyone can see it.

16:47:15 12 A. Yes, go ahead.

16:47:17 13 Q. Do you see in that appendix that  
16:47:22 14 there are, and I am publishing it so all of the  
16:47:29 15 attorneys can see as well, there are sort of a  
16:47:32 16 scoring or a grading system for ascertaining  
16:47:38 17 whether the analysts' reaction to a particular  
16:47:40 18 item was positive, negative, or neutral. Right?

16:47:43 19 A. Yes.

16:47:44 20 Q. Who assigns the positive, negative,  
16:47:49 21 or neutral grades to each analyst report?

16:47:52 22 A. What does the validity mean? So,  
16:47:57 23 the analysts comment about impairments and there  
16:48:02 24 is commentary about management changes.

16:48:06 25 The management changes were done by

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16:48:10 1 word matching. Is something neutral, positive or  
16:48:14 2 negative?

16:48:14 3 The analysts' work on impairment was  
16:48:17 4 quantitative, because at the end of the day they  
16:48:21 5 either did or didn't change a target price.

16:48:23 6 So, that is what that was done.

16:48:27 7 And then the staff working under my  
16:48:30 8 direction prepared that mapping and then we  
16:48:32 9 reviewed it together.

16:48:33 10 Q. When you say that the staff under  
16:48:37 11 your direction prepared that mapping, what do you  
16:48:40 12 mean by that?

16:48:40 13 A. In other words, the qualitative  
16:48:42 14 plus, minus, zero.

16:48:43 15 Q. Okay. So, for the impairment  
16:48:47 16 news -- for the RTM impairment news, are you  
16:48:48 17 saying that the scoring was done on the basis of  
16:48:51 18 whether the analyst changed a price target or  
16:48:56 19 evaluation or some other quantitative measure?

16:48:58 20 A. Yes. So, that one is a little  
16:49:03 21 easier to explain.

16:49:04 22 The other is more qualitative. You  
16:49:06 23 are looking at words.

16:49:07 24 So, as was the case on the other  
16:49:09 25 question, I came up with some words. The

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16:49:11 1 phrases, that I thought represented a point of  
16:49:13 2 view and tried to match as closely as possible.

16:49:16 3 Q. Okay. Were you applying any sort of  
16:49:25 4 industry standards in assessing the positive,  
16:49:32 5 neutral or negative score for reactions to the  
16:49:34 6 management change?

16:49:37 7 A. I'm not sure what you mean by an  
16:49:39 8 industry standard. You mean that people always  
16:49:41 9 like or don't like mining CEOs, is that the  
16:49:44 10 question?

16:49:52 11 Q. Is your scoring based on any sort of  
16:49:55 12 peer reviewed literature?

16:49:56 13 A. There is no peer reviewed literature  
16:50:00 14 on something like this. The question is just how  
16:50:03 15 do analysts think about a management change.

16:50:05 16 That is really why I'm doing this,  
16:50:07 17 is because Dr. Metz has a particular view of the  
16:50:10 18 management change in academic literature.

16:50:12 19 So, I do two things: One, he gets  
16:50:14 20 the academic literature all wrong.

16:50:16 21 And two, I find very mixed support  
16:50:18 22 on the management change.

16:50:19 23 And the best he has done in  
16:50:21 24 complaining about it is a couple of the reports  
16:50:24 25 around the edges.

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16:50:25 1 So, it is qualitative. I would  
16:50:27 2 certainly admit that.

16:50:28 3 Q. Okay. Are you basing this on any  
16:50:30 4 sort of other source -- third party source that  
16:50:40 5 defines how to score news based on positive,  
16:50:46 6 negative, or neutral reaction?

16:50:48 7 MR. KIRSCH: Objection.

16:50:48 8 THE WITNESS: If I'm understanding  
16:50:50 9 your question, no, because I don't need to.  
16:50:52 10 I'm not using this as a quantitative input or  
16:50:55 11 something.

16:50:57 12 It is merely a look at the range of  
16:51:00 13 reactions to management change.

16:51:03 14 The part that is grounded in the  
16:51:05 15 peer reviewed work is what the academic  
16:51:07 16 literature would predict. And it generally  
16:51:10 17 predicts the opposite of what Dr. Metz says.

16:51:19 18 BY MR. BEDNAR:

16:51:19 19 Q. And so the assessment of the score  
16:51:21 20 that would be received, I want to make sure I  
16:51:23 21 understand. Were you determining that score with  
16:51:27 22 respect to management change, or was the score  
16:51:32 23 assigned in the first instance by someone on your  
16:51:34 24 staff?

16:51:34 25 A. At the end of the day, it is me.

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16:51:36 1 So, the staff did the first draft that I had  
16:51:39 2 given the key words we agreed on. And then we  
16:51:41 3 reviewed it together. But at the end of the day,  
16:51:43 4 I am.

16:51:47 5 Q. Okay. And in determining whether  
16:51:48 6 you agree with the score that is assigned to the  
16:51:53 7 analysts' reaction to management change, were you  
16:51:56 8 relying on the excerpts from commentary that are  
16:52:01 9 in Appendix C.8, or were you relying on the  
16:52:04 10 entire report?

16:52:07 11 A. Understanding your question, I think  
16:52:10 12 the commentary is in C.8. In other words, I  
16:52:13 13 tried to put the language in that would help the  
16:52:17 14 readers see why I did what I did.

16:52:18 15 I am not Dr. Metz. I'm not spelling  
16:52:21 16 stuff out. I am giving it all to you and you can  
16:52:24 17 judge me accordingly.

16:52:25 18 Q. In determining whether or not you  
16:52:27 19 agreed with the score that was assigned to the  
16:52:28 20 analysts' reaction to the management change, for  
16:52:31 21 any analyst report that is listed here, did you  
16:52:34 22 read the entire report or were you relying on the  
16:52:37 23 commentary that has been extracted here?

16:52:40 24 A. No, I read the entire report. You  
16:52:43 25 see an -- at the beginning of each block of these

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16:52:45 1 you see something that is overall, that indicates  
16:52:47 2 a reading holistically.

16:52:50 3 Sometimes I will even comment on the  
16:52:52 4 title of the report or something else in the  
16:52:53 5 report.

16:52:54 6 So, yes, the whole report is being  
16:52:58 7 read.

16:52:58 8 Q. And then -- okay, I think I  
16:53:04 9 understand the items that I had questions about  
16:53:09 10 there.

16:53:10 11 I don't know if this is something  
16:53:20 12 that you kept track of. Do you know how many  
16:53:22 13 times you have been hired as an expert witness in  
16:53:23 14 a court case?

16:53:25 15 A. Many times.

16:53:30 16 Q. Do you know approximately how many?

16:53:33 17 A. Over what time period?

16:53:34 18 Q. In your career.

16:53:37 19 A. I don't. You can see -- I think the  
16:53:41 20 report gives you cases in the last four years.

16:53:45 21 But, I don't recall off the top of  
16:53:47 22 my head.

16:53:49 23 Q. Okay. Have ever testified on behalf  
16:53:51 24 of plaintiffs in litigation?

16:53:54 25 A. I have.

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16:53:57 1 Q. What kinds of plaintiffs have you  
16:53:59 2 testified on behalf of?

16:54:00 3 A. I am currently working a couple of  
16:54:04 4 plaintiffs cases now.

16:54:07 5 I have worked on a case in  
16:54:10 6 securities where the Maryland Shines was a  
16:54:14 7 plaintiff. I'm never sure if the government is  
16:54:18 8 the plaintiff or is the defendant, but I have  
16:54:19 9 certainly worked for the IRS, the Justice  
16:54:22 10 Department.

16:54:22 11 Yes, is the short answer.

16:54:31 12 Q. Have you ever been an expert witness  
16:54:33 13 on behalf of shareholders who weren't  
16:54:37 14 institutional shareholders?

16:54:38 15 A. You mean an individual shareholder,  
16:54:44 16 is that what you are asking? Or a class action,  
16:54:46 17 or --

16:54:46 18 Q. Yes, I could have asked that in a  
16:54:50 19 less negative way.

16:54:51 20 Have you ever been an expert on  
16:54:53 21 behalf of either an individual shareholder or a  
16:54:55 22 class of individual shareholders?

16:54:57 23 A. I am currently with an individual  
16:55:02 24 shareholder that I can't mention. It is a very  
16:55:04 25 large individual shareholder in a very large

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16:55:06 1 company. I don't know that I can disclose it.

16:55:08 2 Q. Okay. Ever worked for any other  
16:55:12 3 shareholders besides that one large individual  
16:55:14 4 shareholder?

16:55:14 5 A. Again individual shareholders, no,  
16:55:19 6 not that I can think of off the top of my head.

16:55:22 7 Q. Okay. And then what about classes  
16:55:25 8 of individual shareholders, have you ever worked  
16:55:28 9 for a class of individual shareholders?

16:55:30 10 A. Not that I recall. The Merrill  
16:55:36 11 Lynch funds case, they were an opt-out from the  
16:55:38 12 class. It was the same argument but I was  
16:55:42 13 technically not the class.

16:55:45 14 Q. Sure.

16:55:45 15 MR. KIRSCH: And, Tom, just to be  
16:55:46 16 clear, you are asking about -- I mean, as you  
16:55:49 17 probably know, your typical plaintiff's class  
16:55:53 18 is composed of both individuals and  
16:55:55 19 institutional shareholders.

16:55:56 20 I'm not sure I have seen a class  
16:56:00 21 that -- certainly not many that are composed  
16:56:03 22 by definition only of individual  
16:56:05 23 shareholders.

16:56:07 24 So, are you asking him about an  
16:56:08 25 exclusive individual class?

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16:56:11 1 MR. BEDNAR: That is what I asked.

16:56:11 2 BY MR. BEDNAR:

16:56:13 3 Q. Does that change your answer if I  
16:56:14 4 asked about a class whether it was institutional  
16:56:18 5 shareholders?

16:56:18 6 A. No.

16:56:20 7 Q. Okay.

16:56:21 8 A. Thank you.

16:56:21 9 (Exhibit Number 1100  
16:56:21 10 marked for identification.)

16:56:23 11 BY MR. BEDNAR:

16:56:23 12 Q. I'm going to put up your CV, Doctor.  
16:56:26 13 This is marked as Exhibit 1100. It is Appendix A  
16:56:29 14 to your report.

16:56:30 15 You list in the field of  
16:56:35 16 specialization, natural resource economics.

16:56:37 17 I just wanted to understand what you  
16:56:41 18 mean by natural resource economics?

16:56:43 19 A. Earlier in my career I did a lot of  
16:56:48 20 work on the economics of oil and natural gas  
16:56:51 21 markets, with the way of studying the  
16:56:54 22 relationship between spot and contract prices.

16:56:58 23 I actually built some of the early  
16:57:00 24 models the Energy and Information Administration  
16:57:03 25 used in the Department of Energy back in the late

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16:57:06 1 1970's, early 1980's.

16:57:07 2 So, that is the work under natural  
16:57:10 3 resources.

16:57:11 4 Q. Are you offering any opinions in  
16:57:13 5 this case as an expert in natural resource  
16:57:15 6 economics?

16:57:17 7 A. Nothing I'm offering here is relying  
16:57:20 8 on anything that natural resources developed, no.

16:57:25 9 Q. Okay. Page 3 of your CV, lists a  
16:57:32 10 number of consulting or advisory relationships.

16:57:36 11 I don't need to ask you about all of  
16:57:38 12 those. Rio Tinto is listed.

16:57:45 13 A. It is this case.

16:57:46 14 Q. It is this case. Have you  
16:57:47 15 ever worked on Rio Tinto --

16:57:47 16 A. I'm sorry. What the -- what the  
16:57:49 17 category means is basically in Columbia  
16:57:56 18 University, we always disclose any time you are  
16:57:59 19 being paid to do something.

16:58:00 20 So, my own pattern is rather than  
16:58:03 21 doing it every few years, which is what is  
16:58:06 22 required, I go all of the way back to 2007.

16:58:09 23 So, this is a list that I think many  
16:58:11 24 of these, if not most, are probably commercial  
16:58:14 25 speaking engagements.

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16:58:15 1 But anytime I was paid to do  
16:58:17 2 something, whether it is a matter like this, or I  
16:58:21 3 testify for a company, it is on that list. That  
16:58:24 4 is how Rio Tinto got there.

16:58:25 5 Q. Okay. So, have you ever been paid  
16:58:28 6 to do something by Rio Tinto other than work you  
16:58:30 7 may have done in this case?

16:58:31 8 A. I have not.

16:58:32 9 Q. All right. You listed an engagement  
16:58:36 10 for Amazon. Was that expert witness work?

16:58:39 11 A. Yes. And some strategy consulting.

16:58:44 12 Q. And, what were the issues in the  
16:58:47 13 expert witness work that you did for Amazon?

16:58:51 14 A. It was relating to royalties that  
16:58:54 15 would be paid on streaming music. And I worked  
16:58:59 16 on projects with them on setting the price on  
16:59:03 17 Prime Music and how to grant royalties to  
16:59:06 18 songwriters and performers.

16:59:38 19 MR. BEDNAR: Let me go off the  
16:59:42 20 record for about five or ten minutes and get  
16:59:45 21 organized for the remaining questions I have.

16:59:47 22 I don't think I have too many,  
16:59:48 23 Doctor, so I think it would work best if we  
16:59:51 24 go off the record.

16:59:53 25 THE WITNESS: Okay.

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16:59:53 1 THE VIDEOGRAPHER: We are going off  
16:59:55 2 the record, the time is 4:59 eastern.

17:11:07 3 (Recess taken -- 4:59 p.m.)

17:11:07 4 (After recess -- 5:11 p.m.)

17:11:07 5 THE VIDEOGRAPHER: We are going back  
17:11:17 6 on the record. The time is 5:11 eastern.

17:11:24 7 MR. BEDNAR: Before I ask some  
17:11:26 8 questions of Dr. Hubbard, I will just put on  
17:11:29 9 the record that I have talked with  
17:11:31 10 Dr. Hubbard about a variety of analyses that  
17:11:33 11 he has recently conducted.

17:11:37 12 I'm going to request production of  
17:11:42 13 the materials demonstrating the analytical  
17:11:45 14 work that he discussed. We will put that  
17:11:48 15 request in writing.

17:11:49 16 Reserve our right to seek additional  
17:11:52 17 discovery related to those materials as the  
17:11:55 18 defendants have done with respect to  
17:11:56 19 Dr. Metz.

17:11:56 20 BY MR. BEDNAR:

17:11:57 21 Q. Dr. Hubbard, I just have a couple of  
17:11:59 22 little kind of like cleanup questions to make  
17:12:01 23 sure that I understood.

17:12:03 24 The exhibit that we just looked at  
17:12:08 25 was your CV. And I asked you about that list of

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17:12:11 1 speaking and consulting engagements since 2007.

17:12:13 2 Right?

17:12:14 3 A. Yes, sir.

17:12:15 4 Q. The one that Rio Tinto was in the  
17:12:17 5 list.

17:12:18 6 Does that section of your CV list  
17:12:21 7 all of your engagements since 2007?

17:12:26 8 A. Unless I have missed something, they  
17:12:28 9 should be in there, yes.

17:12:29 10 Q. Okay.

17:12:31 11 A. But again, engagements could be a  
17:12:33 12 speaking. It doesn't have to be expert witness.

17:12:36 13 Q. Sure. If there is a client that has  
17:12:38 14 paid you for expert witness services since 2007,  
17:12:41 15 it would be listed in that list?

17:12:43 16 A. It would be in that list. Unless I  
17:12:46 17 have missed it, it should be in that list.

17:12:48 18 Q. Okay. Going back to something that  
17:12:51 19 we discussed probably in the morning, I want to  
17:12:54 20 make sure that I understood your answer.

17:12:55 21 Is it your opinion that the price of  
17:13:00 22 \$16.50 Australian, does that represent the value  
17:13:06 23 of Riversdale with the control premium included  
17:13:13 24 as of April 8, 2011?

17:13:15 25 A. Well, it depends on your definition.

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17:13:19 1 Because that is above the  
17:13:21 2 preexisting market price, it represents a  
17:13:24 3 combination value.

17:13:26 4 If you are buying an asset to change  
17:13:29 5 strategy, it requires control for you to do so.  
17:13:33 6 So, in that sense I suppose you could say yes, it  
17:13:35 7 includes a control premium.

17:13:37 8 But again, I'm not sure it is in the  
17:13:39 9 sense that you are using the term. I think that  
17:13:42 10 any of that extra price is referring to  
17:13:45 11 synergies, ability to change strategies from  
17:13:47 12 controlling an assets, et cetera.

17:13:50 13 Q. And I think I'm going to try to ask  
17:13:52 14 it in a slightly different way because I think  
17:13:54 15 there was something wrong with my question. And  
17:13:56 16 I may not be fixing it, but I will try to ask it  
17:13:59 17 in a different way.

17:14:00 18 Is it your opinion that \$16.50  
17:14:05 19 Australian represents the value of Riversdale  
17:14:08 20 plus the control premium?

17:14:09 21 That those two things combined  
17:14:11 22 together equals the \$16.50 share price?

17:14:15 23 A. Well, I'm not sure what you mean by  
17:14:17 24 value of Riversdale.

17:14:19 25 If you had met the standalone value

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17:14:22 1 of Riversdale, possibly. I mean, if this were  
17:14:26 2 Delaware, and we are talking about a corporate  
17:14:29 3 valuation to separate a stand-alone versus gains  
17:14:32 4 from a merge, what that is supposed to mean, I  
17:14:35 5 suppose so. But the question is not very clear  
17:14:37 6 to me.

17:14:38 7 Q. Okay. And I also asked you a couple  
17:14:42 8 of questions to just sort of understand the way  
17:14:44 9 in which the staff that assisted you on the  
17:14:48 10 report worked under your direction.

17:14:49 11 Did you always instruct your staff  
17:14:57 12 what to do before they did work?

17:15:03 13 A. Yes.

17:15:03 14 Q. So, your staff did not do --

17:15:06 15 Did your staff do any work that the  
17:15:09 16 attorneys asked them to do rather than work that  
17:15:12 17 you asked them to do?

17:15:14 18 A. Not to my knowledge and certainly  
17:15:16 19 not from me, because I directed the individual  
17:15:21 20 project. I can't say if they have done something  
17:15:23 21 I don't know, but not to my knowledge.

17:15:25 22 Q. And are you aware --

17:15:27 23 Without divulging the contents, are  
17:15:29 24 you aware of your staff communicating any  
17:15:32 25 findings to the attorneys in this case without

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17:15:36 1 you involved in those communications?

17:15:38 2 A. I can't imagine that that would  
17:15:44 3 happen, because I directed them. So, I'm asking  
17:15:47 4 them for the findings.

17:15:48 5 If you are asking did they also tell  
17:15:50 6 the attorneys before we finalized the report,  
17:15:52 7 that I don't know. But, I'm not really sure what  
17:15:55 8 you are asking.

17:15:55 9 Q. Okay. So you are not aware of your  
17:15:58 10 staff reporting on any findings, of any work that  
17:16:07 11 was not done at your direction, right?

17:16:09 12 A. Correct.

17:16:10 13 Q. Okay. Did your staff ever give you  
17:16:15 14 recommendations on different directions to take  
17:16:21 15 for the work in your report?

17:16:22 16 A. I'm not sure what you mean by a  
17:16:27 17 different direction.

17:16:27 18 My typical pattern is to block out  
17:16:30 19 an outline and topics and approaches and talk it  
17:16:33 20 through.

17:16:34 21 I don't recall anything like a  
17:16:35 22 different direction --

17:16:41 23 Q. Okay. And to make sure I understand  
17:16:43 24 I will give you an example.

17:16:44 25 Did you conduct any analyses at the

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17:16:48 1 suggestion of your staff?

17:16:51 2 A. Not that I recall, no.

17:16:54 3 Q. So, the -- for instance the  
17:16:57 4 different progression analyses that were run as  
17:16:59 5 part of your study, it was your idea to run those  
17:17:03 6 analyses?

17:17:03 7 A. Yes, because they came from  
17:17:06 8 essentially my reading of Dr. Metz's deposition.

17:17:09 9 Q. Okay. The regression analyses that  
17:17:14 10 were done as part of your written report, were  
17:17:16 11 those all done at your direction?

17:17:18 12 A. They were.

17:17:19 13 Q. Okay. Including the regression  
17:17:22 14 analysis that was run on March 29th of 2011?

17:17:27 15 A. Yes. I think, actually there was  
17:17:29 16 even a print run-up on it in the paper as having  
17:17:40 17 watched. So, yes.

17:17:41 18 Q. Okay. And then I'm sorry to return  
17:18:03 19 to something I was just asking you about.

17:18:04 20 But, the issue of your opinion of  
17:18:13 21 the \$16.50 per share acquisition price.

17:18:18 22 Do you agree that that represents  
17:18:20 23 the approximate fair market value of Riversdale  
17:18:28 24 and the control premium that may or may not have  
17:18:31 25 been paid?

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17:18:31 1 A. That is a hard question, because I'm  
17:18:33 2 not sure what you mean by fair market value.

17:18:35 3 So, there is the notion of a  
17:18:38 4 stand-alone fair market value which it clearly  
17:18:40 5 isn't.

17:18:40 6 So, basically Rio Tinto is thinking  
17:18:43 7 that the asset is worth more than the market  
17:18:47 8 price in its hand so it will pay more.

17:18:49 9 And so, in that sense it is adding  
17:18:52 10 to the standalone control premium, if that is  
17:18:55 11 your question.

17:18:55 12 Q. Okay. And in the context in which  
17:19:05 13 you have just used it, what is the standalone  
17:19:08 14 value?

17:19:08 15 A. What is the standalone value?

17:19:13 16 Q. I'm sorry. What does that content  
17:19:16 17 mean, just to define that term, not to say what  
17:19:18 18 it is for Riversdale.

17:19:19 19 A. In other words, a stand-alone value  
17:19:21 20 would mean if a company were on its own, with its  
17:19:24 21 own management and strategy, resources, that is  
17:19:28 22 the fundamental value of the price.

17:19:41 23 MR. BEDNAR: Okay. Dr. Hubbard, I  
17:19:42 24 don't have any further questions for you at  
17:19:44 25 this time.

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17:19:44 1 If any of the attorneys for the  
17:19:46 2 defendants ask you questions, I reserve any  
17:19:49 3 time I have left in case there is a need for  
17:19:51 4 follow-up.

17:19:52 5 But, I do thank you for your time  
17:19:53 6 and your patience so far.

17:19:55 7 A. Thank you, my pleasure.

17:19:59 8 MR. KIRSCH: On behalf of Rio Tinto  
17:20:02 9 we have no questions, thank you.

17:20:07 10 MR. CHEPIGA: On behalf of  
17:20:09 11 Mr. Elliot, this is Geoff Chepiga, we have no  
17:20:11 12 questions.

17:20:12 13 Thank you, Dr. Hubbard.

17:20:14 14 MS. VALLETTE: And on behalf of  
17:20:16 15 Mr. Albanese, this is Jackie Vallette, we  
17:20:18 16 also have no questions.

17:20:20 17 Thank you for your time today,  
17:20:21 18 Dr. Hubbard.

17:20:22 19 THE WITNESS: Thank you.

17:20:24 20 MR. BEDNAR: Thank you, Dr. Hubbard.  
17:20:26 21 We can go off the record.

17:20:27 22 MR. KIRSCH: Thank you, Tom. Thank  
17:20:29 23 you Glen and Lori for your time and patience  
17:20:32 24 today.

17:20:32 25 THE WITNESS: Yes, thanks so much.

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17:20:33 1 And sorry for all of the noise and the  
17:20:35 2 drilling and the air con. I apologize.

17:20:38 3 THE VIDEOGRAPHER: This marks the  
17:20:40 4 end of the deposition of Dr. Glenn Hubbard.  
17:20:42 5 We are going off the record at 5:20 eastern.

17:20:55 6 (Whereupon, signature not having been  
7 waived, the deposition suspended at 5:20 p.m.)

8 \* \* \*

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CERTIFICATE OF WITNESS

I, GLENN HUBBARD, PH.D. declare that I have read the entire transcript of my deposition testimony, or the same has been read to me, and certify that it is a true, correct and complete transcript of my testimony given on June 26, 2020; save an except for changes and/or corrections, if any, as indicated by me on the attached Errata Sheet, with the understanding that I offer these changes and/or corrections as if still under oath.

\_\_\_\_\_ I have made corrections to my deposition.

\_\_\_\_\_ I have NOT made any changes to my deposition.

Signed \_\_\_\_\_  
GLENN HUBBARD

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

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1	ERRATA SHEET		
2	Deposition of: GLENN HUBBARD, PH.D.		
	Date taken: June 26, 2020		
3	Case: SEC vs. Rio Tinto PLC, et al.		
	PAGE LINE		
4	_____	_____	CHANGE: _____
			REASON: _____
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	_____	_____	CHANGE: _____
6			REASON: _____
7			CHANGE: _____
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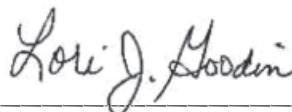
CERTIFICATE OF COURT REPORTER

UNITED STATES OF AMERICA )

DISTRICT OF COLUMBIA )

I, LORI J. GOODIN, RPR, CLR, CRR, the  
reporter before whom the foregoing deposition was  
taken, do hereby certify that the witness whose  
testimony appears in the foregoing deposition was  
sworn by me; that the testimony of said witness  
was taken by me in machine shorthand and  
thereafter transcribed by computer-aided  
transcription; that said deposition is a true  
record of the testimony given by said witness;  
that I am neither counsel for, related to, nor  
employed by any of the parties to the action in  
which this deposition was taken; and, further,  
that I am not a relative or employee of any  
attorney or counsel employed by the parties  
hereto, or financially or otherwise interested  
in the outcome of this action.

Dated: June 26, 2020



LORI J. GOODIN, RPR, CLR, CRR, RSA  
Notary Public in and for the  
District of Columbia

My Commission expires: May 14, 2021

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

1

A			
<p><b>a.m</b> 2:16 10:2 60:17,18 94:13,14</p> <p><b>a/k/a</b> 166:11</p> <p><b>ability</b> 56:11 248:15 253:14 280:11</p> <p><b>able</b> 12:21 17:10 22:21 45:20 54:7 103:19 111:17 194:20 200:14 206:21 250:10 252:15</p> <p><b>abnormal</b> 36:25 37:18,19 108:11 218:3 220:9 226:12 238:10 245:23 246:14 256:20 257:16,20 258:7,21</p> <p><b>absence</b> 29:17 98:18 238:3 249:23 250:1</p> <p><b>absolutely</b> 19:12 21:1 79:1</p> <p><b>academic</b> 37:21 38:14 39:1 41:12 49:5,14 78:9 212:18 269:18,20 270:15</p> <p><b>accept</b> 118:8 119:3 121:17 240:15</p> <p><b>acceptance</b> 64:11</p> <p><b>accepting</b> 128:18</p> <p><b>access</b> 194:8</p> <p><b>accomplishing</b> 226:5</p> <p><b>account</b> 46:25 203:12 219:23 255:17</p> <p><b>accounting</b> 222:2</p> <p><b>accreted</b> 19:12,16 20:5,23 217:2</p> <p><b>accretion</b> 220:19,20</p> <p><b>accretive</b> 134:2,22 135:11 136:15</p> <p><b>accurate</b> 166:6</p> <p><b>achieve</b> 238:13</p> <p><b>acquire</b> 68:12 192:22 193:16</p> <p><b>acquired</b> 51:7 53:21 61:4 208:20</p> <p><b>acquirers</b> 208:4,6</p> <p><b>acquiring</b> 39:18 40:24 47:6 116:4 194:8 205:14 206:3 207:22 209:6 219:20</p> <p><b>acquisition</b> 19:12,15,25 20:2,23 51:12,18 54:11,17 55:21 58:11,15,16,20,21 58:24 59:2,17,20 60:24 61:1 63:22 66:3 133:25 134:2 135:10 192:18 199:1 207:13,23 255:2,16,20 266:6 283:21</p> <p><b>acquisitions</b> 20:5 41:2 203:5 207:11,21</p> <p><b>action</b> 22:2 136:9 251:10 254:15,18 255:1 273:16</p>	<p><b>actions</b> 249:18</p> <p><b>activities</b> 147:20</p> <p><b>activity</b> 146:2</p> <p><b>actual</b> 35:20 68:22 78:16,18 174:18 211:1 222:1 265:17 266:6</p> <p><b>add</b> 18:25 86:4 160:5 163:5 219:25</p> <p><b>added</b> 18:20 19:2 23:6 31:11 31:15 159:19 166:17 199:18 215:16 264:21</p> <p><b>adding</b> 18:23 284:9</p> <p><b>addition</b> 47:21 109:13 124:20</p> <p><b>additional</b> 16:3 17:2 262:15 263:17,25 278:16</p> <p><b>address</b> 238:16</p> <p><b>addressed</b> 242:11</p> <p><b>addresses</b> 19:10</p> <p><b>adds</b> 218:10</p> <p><b>adjustment</b> 190:10</p> <p><b>Administration</b> 8:22 142:2 275:24</p> <p><b>Administration's</b> 142:16</p> <p><b>administrative</b> 70:3</p> <p><b>admit</b> 270:2</p> <p><b>ADR</b> 23:18 45:7,10 69:15 70:14 71:3,20 74:19 75:24 108:10,12 134:6 226:12 250:11 256:15 258:4</p> <p><b>ADRs</b> 23:23</p> <p><b>advance</b> 112:14</p> <p><b>advanced</b> 113:24 114:19</p> <p><b>advisory</b> 276:10</p> <p><b>affect</b> 34:22 98:19 99:7 103:10 104:16,18 127:10 146:14 182:18 195:6 232:20 248:15 263:23 264:1</p> <p><b>affirmative</b> 43:10</p> <p><b>Africa</b> 55:25</p> <p><b>agencies</b> 251:16 253:16 254:7</p> <p><b>agency</b> 7:22 110:2 252:11 254:13</p> <p><b>aggregate</b> 49:11</p> <p><b>ago</b> 150:23 151:5 211:22</p> <p><b>agree</b> 13:17 14:1 35:7 44:15 63:8 118:5 119:22 122:12 126:2 131:17 142:15,18 145:23 154:22 160:7 164:7 165:21,22,23,24,25 166:2 199:22 201:15 202:11 207:19 213:9 233:9 234:2 244:16,20 245:5 252:21 259:10 271:6 283:22</p>	<p><b>agreed</b> 271:2,19</p> <p><b>agreement</b> 266:24</p> <p><b>agreements</b> 197:25</p> <p><b>ahead</b> 14:16 38:3 43:22 59:10 79:24 87:21 126:8 133:2 144:22 157:6 165:7 206:5 216:22 267:10,12</p> <p><b>air</b> 286:2</p> <p><b>akin</b> 139:20</p> <p><b>al</b> 10:9 288:3</p> <p><b>Albanese</b> 1:8 2:8 4:3 5:5 285:15</p> <p><b>Alcan</b> 58:15,20,21 59:1,20 60:23 61:5</p> <p><b>Alcoa</b> 93:15,20</p> <p><b>allegation</b> 152:2 227:2,11</p> <p><b>allegations</b> 227:9</p> <p><b>alleges</b> 136:8</p> <p><b>allows</b> 13:15</p> <p><b>alluded</b> 98:16</p> <p><b>alludes</b> 164:8</p> <p><b>Alon</b> 49:5,16</p> <p><b>alternative</b> 78:19</p> <p><b>Altes</b> 256:2</p> <p><b>altogether</b> 27:2</p> <p><b>aluminum</b> 88:9,10,11,13,15 88:22 89:9</p> <p><b>amazing</b> 215:5</p> <p><b>Amazon</b> 277:10,13</p> <p><b>AMELIA</b> 3:11</p> <p><b>AMERICA</b> 289:2</p> <p><b>Americas</b> 4:19</p> <p><b>amount</b> 218:6 230:5 233:10 234:3</p> <p><b>amounts</b> 265:14</p> <p><b>analogues</b> 175:9</p> <p><b>analyses</b> 89:9 91:5 160:16 263:20,25 278:10 282:25 283:4,6,9</p> <p><b>analysis</b> 5:6,7 16:23 25:8 26:22,25 27:9 45:7 48:2,4 63:9,20 68:11 72:4 73:14 74:6,8 86:25 100:23 102:14 105:3,11 106:3 125:19 126:13 128:10 136:19 138:20,22 139:1,24 140:6,13,24 155:14 163:19 168:25 170:6,24 172:12 186:23 190:15,16 209:11 219:16 242:6 243:23 251:24 252:10 256:2 258:16 259:6 262:22 264:16 283:14</p> <p><b>analyst</b> 46:14,15 48:22 49:1 49:9,9,12,25 68:2 198:13 200:5 215:12 224:6,6</p>	<p>225:8,19 227:20 266:4 267:21 268:18 271:21</p> <p><b>analyst's</b> 193:14 200:4</p> <p><b>analysts</b> 31:5 46:11,20 48:1 48:16 49:2,6 50:13 67:8,22 186:20 201:7 224:19 225:3 259:3 266:19 267:23 269:15</p> <p><b>analysts'</b> 7:7 46:1 47:7,10 49:20 59:24 222:24 223:2 225:23 226:1 258:16 259:3 259:6 267:17 268:3 271:7 271:20</p> <p><b>analytical</b> 243:20 278:13</p> <p><b>analyze</b> 20:12,13 62:2,21 64:17 66:2 69:15 113:12 141:8 168:9 175:22 189:18 244:14 253:18</p> <p><b>analyzed</b> 19:19 66:7 124:1 236:25 242:17 244:5,8</p> <p><b>analyzing</b> 30:14 133:24</p> <p><b>AND-</b> 4:10</p> <p><b>and/or</b> 287:8,11</p> <p><b>Andrade</b> 205:6</p> <p><b>ANDREW</b> 3:8</p> <p><b>AngloAmerican</b> 8:6 159:16 159:19 160:9,12,16 161:2 161:5,24 163:15,16 169:2 169:4,14 170:7,15 172:3 172:13 173:16 174:10,12 176:13,25 177:4,19 178:6 179:2,23 183:19</p> <p><b>AngloAmerican's</b> 170:20 171:18 176:4 179:15</p> <p><b>announce</b> 252:16</p> <p><b>announced</b> 117:11 124:17 251:1,10,23 252:20 255:2</p> <p><b>announcement</b> 33:24 73:18 73:23 74:11,20 248:9 252:14 253:20</p> <p><b>announcing</b> 252:24 253:3</p> <p><b>annual</b> 8:3,5,6 100:24 101:3 130:6 145:11 156:23 158:13,17 166:5 171:10,14 171:19 174:3 176:4,11 181:8 185:2 188:5 189:23</p> <p><b>answer</b> 15:22 17:24 22:9 23:1,18,24 24:3 27:4 30:11 33:16 34:7,8 37:11 38:2 39:6 43:9,20,24 44:25 49:21 53:24 56:7 57:17 59:6,10 63:18 67:20 68:22 72:1,10,22,22 73:3 75:21 78:22 86:4 87:21,23 91:20 92:20 105:17 106:6 107:1 127:22 128:6,23 129:3</p>

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

2

132:13 135:12 140:4 149:15 153:19 156:13,20 161:8,10,16 164:23 170:25 171:25 172:24 173:11,14 174:3,18 184:23 185:5 187:3,4 188:2 189:24 196:12 197:1 199:6 206:5 206:6,8 207:17 211:15 219:15 220:18,20 231:12 247:19 248:2 249:5 259:14 264:9 266:10,17 273:11 275:3 279:20 <b>answered</b> 101:2 104:5 183:3 206:7 216:21 <b>answers</b> 13:14 155:24 162:18 220:23 259:17 <b>anticipate</b> 224:4,17 <b>anybody</b> 18:9 50:17 <b>anytime</b> 277:1 <b>anyway</b> 47:8 78:23 99:23 214:10 <b>apologies</b> 59:14 <b>apologize</b> 17:25 84:20 152:18 286:2 <b>appear</b> 81:5 188:18 <b>appears</b> 11:12 142:15 152:19 <b>appendices</b> 15:16 36:22 187:16,19 190:6 194:24 265:15 266:9 <b>appendix</b> 7:4,6 25:19,22,23 25:25 28:6 61:16 62:4 74:8 171:9 201:12 224:6 225:22 226:3 266:5,7 267:3,9,13 271:9 275:13 <b>application</b> 67:3 <b>applied</b> 39:1 178:15 179:9 202:13,16 <b>applies</b> 233:6 <b>apply</b> 12:10 202:20 238:18 243:17 <b>applying</b> 38:9 269:3 <b>appreciate</b> 159:2 <b>approach</b> 33:20,21 229:14 <b>approaches</b> 282:19 <b>appropriate</b> 19:5 83:20 84:16 138:1 154:20 155:18 <b>approval</b> 224:12 <b>approved</b> 114:3 <b>approximate</b> 231:2 283:23 <b>approximately</b> 272:16 <b>APR</b> 76:15 <b>April</b> 24:10,16 65:24 66:23 67:13 68:4 69:9 89:5 107:11 108:12,14,23 109:15,16 110:3 116:15	117:3,7,8,17 118:2,3,7,11 118:13,23 119:8,10,15,22 119:24 120:6,11 121:1,20 123:8,19 124:8,17,23 125:7,11 126:14 127:8 128:11 134:1,10 137:14 138:21 141:17 143:5,5,10 143:12,17,17 192:18,22,25 193:15,25 197:12 198:14 199:23 200:18 212:20 213:19 220:5 254:21 255:18 279:24 <b>arbitrage</b> 32:13 <b>areas</b> 148:18,18 <b>arguably</b> 20:11 238:21 <b>argue</b> 204:15 <b>argument</b> 20:21 57:13 65:6 65:6 70:21 92:22 101:6 105:25 128:18 148:21 274:12 <b>arguments</b> 100:9 <b>art</b> 231:8 244:25 <b>article</b> 7:15,17,18,19,20,22 7:24 8:8,10 110:2,8,9,10 110:19 111:17,18 112:8 113:3,9 114:9,15 115:15 115:19 116:9,11 117:10,18 117:25 119:1,8 120:16 122:20 194:23 197:12,16 <b>articles</b> 62:9,20 113:3 124:10 141:21 194:20,24 195:3,7 197:2 201:3,12 206:1 <b>ascertain</b> 49:19 84:15 132:17 219:6 228:9 229:8 258:19 <b>ascertaining</b> 119:18 223:2 254:15 267:16 <b>aside</b> 101:23 <b>asked</b> 24:19,22 25:13 33:15 57:6 60:5,22 71:12 95:11 95:12 100:2 128:6 175:22 184:16,22 187:2,3 193:11 196:25 216:20 242:9 247:18 259:13 273:18 275:1,4 278:25 281:7,16 281:17 <b>asking</b> 30:10 33:11 45:19 56:15 63:4,5 64:2 65:10,14 71:18,19 78:25 86:8 90:4 91:9 96:19 118:10 125:19 132:25 134:15 139:5,7,23 140:21 150:6 153:8 161:3 161:4,5,12 162:17,24 163:13 165:24 172:17 179:20 185:23 191:16	201:20 216:17 225:12,16 227:12,13 230:25 238:4 242:20 246:2 247:11 252:1 273:16 274:16,24 282:3,5 282:8 283:19 <b>asks</b> 89:16 <b>aspect</b> 64:16 254:5 <b>aspects</b> 64:24 <b>Aspit's</b> 205:8 <b>assertion</b> 46:6 117:6 120:4 120:7 122:3 124:7,9 125:2 126:20 129:5 132:19 148:3 <b>asserts</b> 66:23 <b>assess</b> 138:12 152:6 <b>assessing</b> 137:24 212:19 269:4 <b>assessment</b> 270:19 <b>asset</b> 60:4 204:4 205:1 207:7 217:16,23 221:1,8 222:5 224:8 253:4 280:4 284:7 <b>assets</b> 134:1,4 206:23 208:6 223:22 280:12 <b>assigned</b> 270:23 271:6,19 <b>assignment</b> 21:6 <b>assigns</b> 267:20 <b>assisted</b> 281:9 <b>associated</b> 37:17 40:8 206:18 209:25 223:10 233:4 <b>assume</b> 20:20 29:4 75:18 111:13 127:8 161:23 191:21 245:18 <b>assumed</b> 213:18 215:3 <b>assuming</b> 260:5 <b>assumption</b> 121:18 132:10 161:13 <b>assumptions</b> 25:9 53:6 132:23 <b>astonished</b> 137:3 <b>attach</b> 37:4 <b>attached</b> 287:9 <b>attempt</b> 50:23 52:3 68:12 <b>attention</b> 109:12 <b>attorney</b> 11:19 <b>attorneys</b> 137:6 267:15 281:16,25 282:6 285:1 <b>attributed</b> 258:15 <b>audio</b> 94:19 102:21 <b>August</b> 253:23 256:16,20 257:16 258:4 <b>Australia</b> 55:16,23 56:12,17 57:20 117:23 120:13 197:20 <b>Australian</b> 56:18,22 57:10 57:16 58:2 118:11 208:22	279:22 280:19 <b>author</b> 150:20 <b>authored</b> 39:14 <b>authority</b> 98:5 <b>authors</b> 49:15 <b>available</b> 24:5 157:6 254:2 261:12 266:19 <b>Avenue</b> 3:18 4:19 <b>average</b> 147:23 207:10 208:24 209:23 210:10,16 210:20 211:11,18 <b>AVI</b> 3:21 <b>award</b> 178:7 180:18 <b>awards</b> 181:22 <b>aware</b> 60:6 61:3 72:10 75:22 95:1 170:17 281:22,24 282:9 <b>awetzman@gibsondunn...</b> 3:22
<b>B</b>			
<b>B</b> 7:4 25:22,23,25 28:6 93:1 171:9 201:12 212:10 <b>B8</b> 225:23 <b>back</b> 15:17 22:16,22 28:15 40:20 41:22 42:5 54:25 57:16 60:19 73:21 74:1,15 76:3 79:14 94:15 100:1 102:2 109:3,8 110:24 111:3,10,14 116:13 119:14 119:20 120:2 122:23 133:11 148:20 149:16 150:1 154:9 155:7 157:7 159:11 164:14 167:2 168:13 183:9 186:5 192:14 202:24 205:2,8 213:24 218:25 219:3 235:8 248:18 257:11 265:22 275:25 276:22 278:5 279:18 <b>background</b> 30:17 99:16 158:12 <b>backup</b> 64:20 65:25 67:11 69:18,19 70:21 71:1,13 72:5 73:14 74:9 75:14 105:20 112:11 140:10 187:14 240:11 <b>baffled</b> 135:19 <b>baked</b> 218:20 <b>Bancorp</b> 183:9 <b>barely</b> 40:17 204:25 <b>barge</b> 224:21 225:9,21 <b>barging</b> 224:13 <b>Barrick</b> 115:11 189:13,13,18 190:18 192:2 <b>based</b> 21:25 97:4 100:23 121:15 128:17 153:7,22			

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

3

178:23 179:3 180:18 269:11 270:5 <b>basic</b> 11:22 14:18 29:6 99:13 228:5 239:9 240:12 240:14 <b>basically</b> 219:8 276:17 284:6 <b>basing</b> 270:3 <b>basis</b> 119:18 126:16 128:14 135:22 136:3,6 148:2 168:5 219:25 227:14 244:10 251:9,13 255:11,15 268:17 <b>bearing</b> 220:21 <b>Bednar</b> 3:9 6:6 11:8,17,19 13:25 14:3,14,24 18:1 21:24 24:13,21 25:17 29:25 30:1 35:25 38:7 39:12 43:12,19 44:14 45:5 48:11,13,14 51:15 53:9 56:24 59:15 60:12,21 63:19 68:23 70:11,12,24 72:15 74:3 75:8,13 80:6 84:23 85:16 88:4 90:1,18 94:6,17 96:11 99:25 102:13 103:19 104:2,7 108:24 109:10 110:6,17 112:1,4 114:13 115:23 117:14 118:20 119:13 120:21 123:24 128:7 129:21 130:4 133:2,15 136:2 137:23 138:9 141:24 144:2 146:22 152:22,24 153:2 155:2 158:23 159:2 159:6,14 161:19 162:23 165:12 170:5 176:1,18,20 178:24 179:12 181:6 184:4 184:19 186:12,22 188:9,24 189:4 192:7,16 193:13,21 195:11 196:20 197:10 198:11 199:7 200:10,24 206:16 208:10 211:7 212:4 213:6 217:13 220:24 225:7 225:14 230:6,8 233:2 234:23 235:10 237:3,6 240:19 241:8,18,25 243:3 244:7 246:3 247:1,12,21 249:22 255:10 267:8 270:18 275:1,2,11 277:19 278:7,20 284:23 285:20 <b>bednart@sec.gov</b> 3:13 <b>Beers</b> 173:16 <b>began</b> 201:16 <b>beginning</b> 2:16 202:17,24 223:18 229:15 271:25 <b>begins</b> 10:5	<b>behalf</b> 2:15 3:3,16 4:3,17 208:13 272:23 273:2,13,21 285:8,10,14 <b>beholder</b> 73:10 <b>belief</b> 66:21 204:12 <b>believe</b> 31:16 34:20 44:12 45:12 49:16 52:11 55:12 55:12 61:6,7 62:8 64:19,21 67:7 68:18 72:19 74:13 93:8,16 95:9 121:12 128:9 154:18,19 178:1 186:9 198:19 211:23 212:25 217:10 219:9 225:23 <b>believed</b> 66:19 134:3 <b>belt</b> 228:20 <b>benchmark</b> 116:1 158:5 175:2 <b>beneficial</b> 19:6 <b>beneficiary</b> 148:15 <b>benefit</b> 261:25 <b>benefits</b> 39:16 57:2,4,5,8 203:21 204:1,4 <b>best</b> 78:21 79:12 154:18,23 155:4 185:4 269:23 277:23 <b>beta</b> 139:21 <b>better</b> 67:18 79:1 94:19 155:16 156:3 186:10 196:4 196:24 <b>beyond</b> 26:3 31:12 238:20 265:3 <b>BHP</b> 77:18,25 78:14 90:20 149:12 182:19,19 183:19 <b>BHP's</b> 181:21 <b>bid</b> 62:11,22 63:7,13 64:3 68:18 69:1 118:25 119:3 196:1 233:18 235:15 236:2 236:16 237:22 266:6 <b>bid-ask</b> 31:24 32:2,7 229:17 230:25 233:16 235:14,23 236:13,19,20 <b>big</b> 23:5 52:1 93:13 97:25 218:15 221:3 <b>bigger</b> 218:18 <b>billion</b> 119:3 214:8 218:5 252:17,20,24 253:4 <b>Billiton</b> 8:3 149:12 181:9 <b>Billiton's</b> 181:21 <b>binder</b> 15:5 <b>binders</b> 12:15 13:3 181:15 <b>bit</b> 36:5 154:11 158:24 <b>blend</b> 123:12 <b>block</b> 271:25 282:18 <b>Bloomberg</b> 28:8,10,23 29:2 <b>blue</b> 80:8 <b>bolster</b> 16:25 253:1 <b>bond</b> 8:12,13 226:13,23	227:4,16 228:11 229:22 230:1,9 231:5,15 233:10 234:20 235:12 236:2,8,16 236:25 237:9,10,18,21 238:3,8 239:20 240:24 241:3,14 242:4,7,19,21 243:8,21 244:21 246:10 247:3 248:11,16 253:23 <b>bondholders</b> 248:17 <b>bonds</b> 226:7 227:17,23 228:13,15,19,21,23,25 229:5,9,19 230:11,14 231:19 234:4,7,14 236:22 238:19 239:4,11 240:7 242:16 243:25 244:10,14 244:16,20 245:8,14 247:8 247:15 248:13,20,25 249:8 250:3 253:6,9 <b>bonus</b> 199:19 <b>boom</b> 119:16 <b>boost</b> 119:16 <b>boosting</b> 114:2 <b>borne</b> 253:11 <b>bother</b> 62:17 <b>bottom</b> 40:7 103:3 116:19 176:21 178:5 197:22 209:19 <b>bought</b> 231:18 <b>bounce</b> 235:14,16,22 236:13,20 <b>bouncing</b> 235:23 <b>BOUND</b> 9:13 <b>box</b> 145:16 198:24 <b>boxing</b> 167:8 <b>boy</b> 44:8 <b>Brav</b> 49:5,16 <b>Brazilian</b> 198:6 <b>break</b> 13:5 59:9 60:7,13 94:9 94:19 134:22 158:9 159:5 192:6,7 234:24 <b>breakdown</b> 253:3 <b>breaking</b> 80:22 82:14 94:1 94:25 <b>breaks</b> 136:15 <b>Brent</b> 142:4,21,23 143:13 147:22 148:3 <b>BRESETTE</b> 3:11 <b>bresettea@sec.gov</b> 3:14 <b>briefly</b> 180:9 <b>bright</b> 184:23 <b>bring</b> 26:9 <b>broke</b> 91:2 <b>broken</b> 135:11 <b>built</b> 263:20 275:23 <b>bullet</b> 109:24 110:20 111:15 114:6 115:18	<b>Bulletin</b> 7:21 109:13 116:15 116:24 120:16 121:9,15 122:2 124:21 <b>business</b> 46:17 79:9,21 88:11 92:9 95:19 97:4,6 169:8 178:3,23 191:3,15 197:20 <b>businesses</b> 100:10 106:20 172:6 174:17 175:18 191:23 <b>button</b> 142:9 <b>buy</b> 47:11 153:7 198:25 199:25 217:7 <b>buyer</b> 204:13 <b>buying</b> 153:16 154:1 200:16 217:2 280:4 <b>buys</b> 153:13 <hr/> <b>C</b> <b>C</b> 3:1 4:1 5:1 37:1 38:20 214:17 216:5 219:7,19 <b>C.8</b> 7:6 267:3,5,9 271:9,12 <b>C2</b> 266:5,7 <b>calculate</b> 214:2 239:21 240:2 <b>calculation</b> 209:12 212:12 218:14 <b>calculations</b> 209:9 <b>California</b> 1:24 2:19 289:24 <b>call</b> 14:10 52:4 150:15 214:20 <b>call-in</b> 99:17 <b>called</b> 11:4 18:8 214:7 230:12,16 261:17 <b>calls</b> 68:7 81:12 <b>Cameco</b> 166:11,17 <b>CAMPOAMOR-SANCHEZ</b> 3:10 <b>campoamorsanchezf@se...</b> 3:13 <b>Canadian</b> 160:3 <b>CANJELS</b> 3:10 <b>cap</b> 28:15 80:16 228:17 <b>capital</b> 28:22 53:5 <b>capture</b> 78:16 205:14 206:3 207:22 <b>captured</b> 62:19 204:17,21 207:13 226:3 240:8 262:7 262:16 <b>capturing</b> 78:1 <b>car</b> 84:4 <b>care</b> 67:19 72:2,3 73:12 <b>career</b> 272:18 275:19 <b>carries</b> 209:19 <b>carry</b> 158:8 <b>carrying</b> 61:17
---	--	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

4

<p><b>case</b> 1:7 2:7 10:11 21:3 24:9 24:15 25:8 27:11 62:15 67:10 89:11 90:6,7 91:17 95:9 98:14 102:11 134:17 135:24 136:7,25 137:8 141:12 145:23 152:9 154:13 157:15 201:7 205:18,21,23 208:12 240:4 250:10 253:10 261:2 264:20 266:14,18 268:24 272:14 273:5 274:11 276:5 276:13,14 277:7 281:25 285:3 288:3 <b>cases</b> 19:18 32:21 266:23 272:20 273:4 <b>cash</b> 25:8 130:17 131:20 138:7 146:6 222:13 223:23 248:7 252:5 253:2 255:21 255:22 <b>catalogued</b> 265:4 <b>categorization</b> 170:10 <b>category</b> 276:17 <b>causation</b> 150:15 <b>caused</b> 36:17 224:3 <b>causing</b> 224:16 <b>caveat</b> 37:8 <b>CEOs</b> 269:9 <b>certain</b> 11:25 33:23 95:24 107:12 154:15 226:7 <b>certainly</b> 13:13 14:1 15:21 20:3 25:3 26:14 27:9 28:23 35:10,11 37:15 40:19 41:24 42:19 47:13 50:15 56:5 63:24 68:20 73:10 80:17 88:17,19 89:2 91:15 93:22 100:7 112:10,12 115:17 116:12 118:7,16 121:8 138:15 141:5 146:1 148:13 151:5 157:18 170:3 170:10 184:25 190:24 194:11 200:22 211:3 221:6 223:12 232:24 236:11 240:18 253:1 259:21 265:22 270:2 273:9 274:21 281:18 <b>CERTIFICATE</b> 287:1 289:1 <b>Certified</b> 289:4 <b>certify</b> 287:5 289:5,15 <b>cetera</b> 280:12 <b>challenge</b> 228:1,3 <b>chance</b> 12:3 112:6 214:5 <b>chances</b> 114:2 <b>change</b> 68:24 76:22 127:17 131:21 132:5 144:13 153:12 203:9 206:18 213:2 226:21 247:16 248:24</p>	<p>249:8 250:3,5 251:3,18 253:16 268:5 269:6,15,18 269:22 270:13,22 271:7,20 275:3 280:4,11 288:4,5,7,8 288:10,11,13,14,16,17,19 288:20,22 <b>changed</b> 17:1 128:11 143:18 153:18 154:7 159:21 200:5 223:5 268:18 <b>changes</b> 106:24 144:4 151:16 221:3 224:8 247:3 247:15 249:2 263:23 267:24,25 287:8,10,13 <b>changing</b> 151:11 167:9 203:22,23 <b>characteristics</b> 171:4 <b>characterize</b> 81:18 <b>charitable</b> 218:13 <b>chart</b> 185:14 <b>chatting</b> 165:4 <b>check</b> 24:7 28:15 74:15 95:9 103:20 118:9 119:20 120:8 120:10,12 141:15 156:5 257:5,6 263:15 <b>checked</b> 149:7 166:24 <b>checks</b> 156:7 <b>Chepiga</b> 4:22 285:10,11 <b>cherry</b> 162:17 266:21 <b>China</b> 120:23 <b>Chinese</b> 121:12 <b>choice</b> 16:16 34:9 242:14 <b>choices</b> 188:1 <b>choose</b> 156:21 <b>chosen</b> 244:9 <b>chunk</b> 52:2 <b>circumstances</b> 30:7 207:16 221:8,14 222:10,12 <b>citation</b> 112:6 <b>cite</b> 52:12 109:21 110:1 111:16 116:20 117:2 120:16 124:10 201:1 <b>cited</b> 29:2 62:20 109:14 110:19 122:1 124:21 194:23 197:16 201:12 <b>cites</b> 111:16,16 114:7 <b>citing</b> 117:19 <b>City</b> 159:9 <b>claim</b> 26:16 75:16 <b>claims</b> 108:7 216:15 <b>clarification</b> 76:9 <b>clarified</b> 59:16 74:5 <b>clarify</b> 17:12,14 138:8 <b>clarifying</b> 76:8 <b>class</b> 228:16 273:16,22 274:9,12,13,17,20,25 275:4</p>	<p><b>classes</b> 274:7 <b>classification</b> 81:13 <b>classifications</b> 83:4 <b>classify</b> 76:23 <b>cleanup</b> 278:22 <b>clear</b> 21:19 42:3 63:4 129:9 156:13 206:12 242:13 250:21 274:16 281:5 <b>clearly</b> 84:22 177:22 212:14 257:9 284:4 <b>client</b> 279:13 <b>clinched</b> 113:25 114:20 <b>clone</b> 184:11 <b>close</b> 73:6,9 78:9 85:10 86:6 86:9 89:17,18,21 173:4 183:1 211:20 <b>closely</b> 269:2 <b>CLR</b> 1:24 2:19 289:23 <b>coal</b> 51:14 52:9,13,19 91:23 92:3,4,6,8,10,15,18 119:5 170:17,20 171:20 185:9 194:9,15 198:5 224:22 225:9,21 <b>coauthor</b> 40:24 49:17 <b>code</b> 81:17,19,22 82:2,9,16 <b>codes</b> 81:8,9,10 82:13,18 83:1,5,7,8,14 97:1,3,7,13 97:20,21 98:7 <b>coefficient</b> 219:10 <b>coke</b> 103:7 <b>coking</b> 198:5 <b>colloquial</b> 245:1 <b>colors</b> 81:3 <b>Columbia</b> 276:17 289:3 <b>column</b> 37:1,2 38:20,23 80:7 180:13 212:10 214:14 214:17 216:5,5 219:7,19 <b>combination</b> 204:10 280:3 <b>combined</b> 184:3 280:21 <b>come</b> 15:23 16:1,8 17:2,15 17:19 22:12 23:12 46:2 52:20 53:11,20 54:9 58:19 58:24 59:18 67:25 81:7 99:12 111:10 118:12 125:5 171:6 193:14 196:21 219:3 223:21 233:15 <b>comes</b> 32:21 89:15 120:1 121:7 148:7 185:23 205:1 <b>comfort</b> 173:11 <b>Cominco</b> 177:4 182:7 <b>coming</b> 84:21 129:21 218:23 <b>comment</b> 64:23 70:20 265:23 267:23 272:3 <b>commentary</b> 59:24 68:3 223:4 225:24 226:1 258:16</p>	<p>259:3,6 267:24 271:8,12 271:23 <b>commented</b> 64:19 69:20 224:19 <b>commercial</b> 276:24 <b>Commission</b> 1:4 2:4 3:4 10:8 11:20 289:25 <b>committee</b> 254:13 <b>commodities</b> 55:10 99:6,9 103:9 104:16 264:21 <b>commodities'</b> 141:16 <b>commodity</b> 25:10 53:7 96:20 99:7 103:14 125:6 130:23 132:5,10 147:16 150:8 <b>common</b> 40:13 96:4 98:4 142:23 <b>communicating</b> 281:24 <b>communications</b> 282:1 <b>companies</b> 17:21 18:20 77:3,6,12,14,19 79:4,8,9 79:20 80:10,13,20,25 81:16,18 82:19 83:21 84:12 86:14 87:23,24 88:15,23 90:8,22,23 91:3 91:23 92:5,7,8,17 93:2,6 93:11,13 95:12,21 97:16 98:16,19 102:3 106:5 148:11,23 149:3 154:1,16 157:3 160:6 162:18 163:1 164:5,12 165:17 166:7 167:21,22 168:1,22 169:9 171:14 173:17 174:11,20 175:6 177:13,13 178:12 182:14 183:2,5 184:10 188:18 190:5,22 191:9,12 191:18,21 193:8 194:4 209:24 <b>companies'</b> 172:5 <b>company</b> 18:16,17,21 35:15 51:13 52:8 54:23 70:15 77:4 82:1,3,13 84:4,5 86:16 88:12 89:8,19,20,22 90:11,24 91:4,8,8,10 93:13 94:3 95:2 96:18 97:5,10 101:6,7 103:12 105:13 124:5 125:14 145:24 152:19,25 155:17 158:4 160:4 163:22,24 164:2,24 167:1,20 170:4 171:6 173:8 175:13,22 186:6,15 186:19 187:4 189:14 190:19,20 191:1,11,23 198:2 203:8 205:5 206:22 207:9 214:7 215:4 217:7 253:2,5 256:22 263:7,20</p>
--	---	--	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

5

<p>274:1 277:3 284:20  <b>company's</b> 47:18 48:17  93:23 97:6 143:25 144:3,4  173:12 184:25 187:8,25  221:2,9,18 222:6 247:14  248:25 249:8 250:3 253:14  <b>comparability</b> 82:23 86:25  88:7 182:19 190:4  <b>comparable</b> 37:5 84:12,14  90:12 97:18 154:16 155:9  161:6 164:3 168:7 170:1,7  183:2 186:4,7 187:12,21  189:19  <b>comparables</b> 90:16 92:21  <b>comparator</b> 18:3 89:8 90:24  93:18,22 95:6 159:16  160:11,15,19,24 161:25  165:19 166:16 167:20  169:4 170:21 173:8 174:13  174:21 175:14 177:7,12,18  177:19,25 178:12,16 179:5  179:16,16,25 180:2,7,24  181:24 182:13 183:24,25  184:20 185:12,19 186:15  186:25 188:14,16 189:7,14  189:20 190:21 191:17  256:22 263:7  <b>comparators</b> 35:20 77:21  78:3,10,17,18 90:25 91:6,9  91:13 93:21 157:1 164:12  166:8 168:23 169:8 171:15  179:4 183:18 185:8 187:12  187:22 191:5  <b>compare</b> 79:22 84:4 162:1  211:1,9,11,17  <b>compared</b> 77:4 91:25  146:11  <b>comparing</b> 106:15 171:22  <b>comparison</b> 100:20 179:15  191:25  <b>comparisons</b> 211:12  <b>compensation</b> 167:23  175:10,16 178:22  <b>competition</b> 174:22 175:3  <b>competitor</b> 70:15 177:6,13  <b>competitors</b> 173:13 175:15  177:1,5 191:12  <b>compiled</b> 162:25 177:24  180:6 216:18 266:7  <b>compiles</b> 175:14  <b>complained</b> 167:10  <b>complaining</b> 269:24  <b>complaint</b> 136:8  <b>complete</b> 183:15 287:6  <b>completion</b> 223:23 252:17  <b>complicated</b> 141:4</p>	<p><b>complied</b> 266:9  <b>component</b> 55:17  <b>components</b> 140:20 149:9  250:19  <b>composed</b> 274:18,21  <b>composition</b> 79:14  <b>comprised</b> 80:24  <b>comps</b> 164:3  <b>computer</b> 103:21  <b>con</b> 286:2  <b>concentrated</b> 56:17  <b>concept</b> 32:1 153:10 213:20  <b>concern</b> 18:6 160:22 164:15  164:19 259:16  <b>concerned</b> 23:4  <b>concerns</b> 16:20,22 17:23  115:2  <b>concessions</b> 193:7,17,20  195:1  <b>conclude</b> 31:8 45:21 131:23  134:1 258:7  <b>concluded</b> 32:4 67:5 101:10  223:9 225:9  <b>concludes</b> 210:9  <b>conclusion</b> 17:1 21:25 33:4  33:10 41:13,23 42:2 44:4  44:17 45:8 46:3 65:11  76:13 100:25 101:3 138:11  171:5,6 187:7,25 195:6  200:15 250:11,21 259:23  260:6,13,19  <b>conclusions</b> 101:14,20  190:3  <b>conclusive</b> 256:14 258:3,8  258:22,24 259:7,11,19,21  260:9  <b>condition</b> 194:16 251:25  253:22  <b>conditions</b> 188:15  <b>conduct</b> 25:5 84:16 282:25  <b>conducted</b> 10:18 24:9,15  226:6 227:4 278:11  <b>conducting</b> 29:7 30:12 33:3  33:14,19 35:5,8 82:11,19  85:1 106:10 138:25 157:14  194:12 227:15 228:6  <b>confidence</b> 38:5 43:7,7 45:1  233:17  <b>CONFIDENTIAL</b> 1:13  <b>conflated</b> 203:11  <b>conflict</b> 209:11  <b>confounding</b> 108:7 112:21  <b>confused</b> 216:24,25  <b>confuses</b> 216:11  <b>connection</b> 94:24 116:7,19  204:1</p>	<p><b>consensus</b> 49:20 50:4,6,12  50:16,18,21  <b>consider</b> 33:1 57:19 61:10  91:5,12 108:13 131:12  132:7,18,20 163:14 170:19  173:22 183:2 254:7,14  <b>consideration</b> 32:17,25  82:12,18 164:4 173:25  174:9 255:17  <b>considered</b> 7:5 26:1 61:12  129:1 144:19 171:1,8,21  171:23 172:3 173:15,21  189:6 195:2,5 226:2  255:13  <b>considering</b> 57:25  <b>considers</b> 164:2 186:15  <b>constant</b> 208:2  <b>constituents</b> 141:10 180:20  <b>constructed</b> 18:7 157:6  229:1  <b>constructing</b> 90:2  <b>construction</b> 22:25 159:11  <b>consulting</b> 276:10 277:11  279:1  <b>consumer</b> 146:18,19  <b>contain</b> 12:16 97:13  <b>contained</b> 119:23  <b>contains</b> 79:17  <b>contemporary</b> 59:22  <b>contend</b> 107:11,14  <b>content</b> 64:1 284:16  <b>contention</b> 137:13  <b>contents</b> 281:23  <b>context</b> 17:18 31:21 32:6,16  50:22 67:21 82:6 84:1  112:19 115:9 150:25 151:9  151:14 153:3 163:5 165:6  193:20 203:4 204:8 210:4  229:22,25 230:9 233:13  261:2,4 284:12  <b>continue</b> 235:11  <b>CONTINUED</b> 8:1 9:1  <b>contract</b> 128:21 196:4,24  211:1 275:22  <b>contracts</b> 126:12 127:18,24  128:13,17,19,22,25 194:15  <b>contradict</b> 196:22  <b>control</b> 39:17 41:7 65:6,13  65:21,23 66:11,15,19 67:6  67:16 68:1,8 112:23  192:22 193:1,6,16 199:18  199:24 200:16 203:2,5,10  203:15,18,20,22 204:1,2,4  206:17 207:2,9,19 209:6  209:12,23 210:16,18 211:9  212:20 213:1,2,19,21</p>	<p>214:6,7,10,19,23,24  215:21 216:6,8,13,19  217:6,15,18,23,24 218:4,6  218:9,12 219:11,16 220:2  220:4 279:23 280:5,7,20  283:24 284:10  <b>controlling</b> 208:21 220:3  280:12  <b>controversial</b> 104:10  <b>convention</b> 39:1 40:12  <b>conversation</b> 122:24  <b>convert</b> 216:15  <b>converting</b> 212:24 215:17  217:20  <b>converts</b> 219:14  <b>copies</b> 12:13  <b>copper</b> 86:19 95:14,15,24  101:19,21 115:5 116:2  149:19,21 150:4 185:9,15  185:17,17 186:1  <b>copy</b> 11:24 39:22 108:3  133:17 142:11  <b>core</b> 77:8 79:4  <b>Corner</b> 10:19  <b>corollary</b> 27:5  <b>corporate</b> 228:15 231:5,15  233:10 249:19 281:2  <b>corporation</b> 56:23  <b>correct</b> 15:11 19:1 26:22  34:5,11,12 36:14 37:2,16  37:19 38:18,20,21,24  41:16 42:24 44:19 54:18  57:3,8 61:21,25 64:8,11,25  69:10,14 72:17 73:8 76:15  76:16 80:11 83:22,24  102:6,8 110:13 111:2,4  116:8 117:4 118:13 119:10  119:11 121:5,21,24 122:15  122:16,21 137:16 141:13  143:11 150:18 166:25  168:24 169:14 177:5  192:23 194:5 198:21 200:1  202:18,19 203:17 210:15  210:20 213:8,14,16 220:14  233:21,24 235:17 236:17  240:9 241:4,14,21,22  242:4 249:10 251:4,5,12  252:10 253:24 254:9,20  256:23 257:2 261:20  263:17 264:25 282:12  287:6  <b>corrected</b> 177:15  <b>corrections</b> 287:8,11,12  <b>correctly</b> 37:3,6 41:9 103:15  103:16 104:6 114:4 115:4  119:6 131:2,10 134:7</p>
--	--	---	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

6

<p>146:12 147:25 209:3  <b>correlate</b> 97:7  <b>correlated</b> 35:16 102:17  105:4,9,12 106:24 139:19  140:19 191:24  <b>correlation</b> 104:25 106:4,12  107:6 139:13,17 150:13,17  <b>correlations</b> 84:7 178:2  <b>correspondingly</b> 238:12  <b>corroborating</b> 156:17,19  157:23  <b>cost</b> 31:25 32:8,9,11 219:19  233:19,22 252:17,20  <b>costs</b> 25:10 146:7,9 147:21  229:17 231:24 232:11,18  233:4 234:5 237:9 243:15  252:25  <b>counsel</b> 10:20 12:4,7 13:15  13:17,18 14:4 289:16  <b>counterpoint</b> 71:17  <b>countries</b> 56:3,5,5 130:24  203:19  <b>country</b> 117:21  <b>coup</b> 220:7  <b>couple</b> 51:11 60:23,24  150:23 180:10 269:24  273:3 278:21 281:7  <b>course</b> 14:3,20 18:8 25:1  47:7 49:9,12 50:24 51:10  51:20 61:8 124:1 137:10  197:3 199:5 204:10 235:2  242:10 262:11 264:3  266:24  <b>courses</b> 172:21  <b>court</b> 1:1 2:1 10:10,16,22,23  19:9 20:15 21:9 22:11  32:21 39:7 46:13 65:4,17  135:8 136:13 220:14  272:14 289:1  <b>courts</b> 31:1,23 32:19 43:8  <b>covariance</b> 139:13,17,21  <b>cover</b> 60:25 176:3 188:11  203:15 204:25  <b>coverage</b> 58:19,25 59:18  157:22 193:15,15 194:13  224:12 227:21 266:3,4,5  <b>covered</b> 149:14 181:25  182:3 263:9  <b>Covid-19</b> 249:20  <b>crazy</b> 213:5,11 214:13,16  <b>create</b> 36:15 215:14  <b>created</b> 36:17,17 195:15  216:2,3  <b>credit</b> 226:21 250:24 251:4  251:7,8,22 252:3,7 253:20  255:18</p>	<p><b>criteria</b> 244:13  <b>critical</b> 252:2  <b>criticism</b> 166:22 263:13  <b>criticize</b> 18:10 169:12  <b>criticizing</b> 85:20  <b>critique</b> 23:20 104:9 107:9  107:13 155:20 168:11  <b>crossed</b> 244:11  <b>CRR</b> 1:24 2:19 289:23  <b>crude</b> 142:23 143:13 147:22  148:3  <b>crush</b> 12:20  <b>CRUTCHER</b> 3:17  <b>CSN</b> 193:7,17,23 194:3,15  194:16,25 196:23 197:23  197:23,24 199:25 200:17  <b>CSR</b> 1:24 2:19 289:24  <b>currencies</b> 130:24 131:24  <b>current</b> 127:24 153:7,23  206:22 207:8  <b>currently</b> 144:1 273:3,23  <b>CUSIP</b> 241:13  <b>customer</b> 231:18  <b>customers</b> 47:1,2 233:23,25  237:12  <b>cut</b> 17:13 158:11 161:21  194:2  <b>cutoff</b> 40:15  <b>CV</b> 7:3 275:12 276:9 278:25  279:6</p> <hr/> <p style="text-align: center;"><b>D</b></p> <hr/> <p><b>D</b> 37:2 38:23  <b>D.C</b> 2:16 3:5 10:1  <b>daily</b> 7:24 32:20 198:14  232:9,13,21 234:5 238:1  239:17,22 240:2 246:22  <b>Darius</b> 39:14  <b>data</b> 18:6 22:18 23:18 24:2,5  24:6 28:7,10,13,14,24 29:2  32:23 47:8 75:17 80:15  104:22 107:2 111:11,14  265:15  <b>database</b> 201:11  <b>databases</b> 201:5  <b>date</b> 10:12 62:22 70:9 73:18  118:1,2,11 119:18 120:25  121:4 134:18 140:5 154:13  201:18 254:25 263:11  288:2,24  <b>dated</b> 61:21 117:17 118:23  197:12 198:14 287:18  289:21  <b>dates</b> 22:23 33:24 34:4  69:18,22 70:1,3 73:23  74:11,20 210:1 226:24</p>	<p><b>DAVID</b> 3:21  <b>day</b> 4:4,11 29:9 45:9 64:10  69:4 76:5,5 104:12 107:12  108:17 111:1 119:25  131:21 134:6 143:12  172:18 200:1 227:2,5  229:15 238:11 239:8,15  240:13 242:7 245:14  248:22 249:6 259:1 268:4  270:25 271:3 287:18  <b>days</b> 29:13 64:21 65:7 67:12  76:4 227:10 229:2 239:12  245:8,9,19,23 246:7,11,13  246:14,20 247:16  <b>de</b> 82:24 173:16 220:8  <b>deadline</b> 69:9,12  <b>deal</b> 23:5 53:5 195:25  205:11,11,12 206:9,9,10  <b>dealer</b> 233:13,14,17,20,24  237:12  <b>dealers</b> 233:11 237:9  <b>dealing</b> 35:14 243:16  <b>deals</b> 206:15  <b>debt</b> 252:5 253:12,14  <b>decade</b> 205:2  <b>December</b> 208:25  <b>decide</b> 136:13 137:12  <b>decided</b> 178:22  <b>decision</b> 153:18,22 156:25  173:12 254:8  <b>declare</b> 287:3  <b>decrease</b> 58:2,6,7 144:16  <b>deem</b> 163:2  <b>defendant</b> 4:3,17 5:4,5  195:14 273:8  <b>Defendant's</b> 15:1  <b>defendants</b> 1:9 2:9 3:16  208:14 278:18 285:2  <b>defense</b> 130:5 133:18  145:10 199:19  <b>defer</b> 137:5,7  <b>define</b> 83:25 107:4 151:2,5  154:25 205:7 284:17  <b>defined</b> 230:10 231:14  249:24  <b>defines</b> 270:5  <b>defining</b> 155:8 220:6,7  <b>definitely</b> 140:12 220:10  <b>definition</b> 20:9 23:19,21  151:18 203:16 219:18  245:6 260:21,22,24 274:22  279:25  <b>degree</b> 92:3 131:8  <b>Delaware</b> 32:23 281:2  <b>delivery</b> 123:16  <b>demand</b> 99:4,4,5 122:22</p>	<p>148:19  <b>demonstrating</b> 278:13  <b>Department</b> 273:10 275:25  <b>depend</b> 30:6 102:9 104:20  125:8 126:4,11 131:24  145:19 205:15  <b>dependent</b> 127:3,4 145:24  <b>depending</b> 17:6 25:7 96:18  100:10 104:24 123:12,16  126:12 175:17 179:8  212:25 259:17  <b>depends</b> 35:10 50:2 98:25  113:6 148:13 152:1 174:24  203:18,19 205:4,4 207:15  207:25 214:4 236:18  253:25 279:25  <b>deposition</b> 1:14 2:14 10:6  10:17 12:10 16:4 18:23  27:25 28:3 105:23 165:5  166:19 263:3 283:8 286:4  286:7 287:4,12,14 288:2  <b>depositions</b> 12:1 13:8  <b>derivative</b> 17:22  <b>derivatives</b> 131:6  <b>derive</b> 212:11  <b>derived</b> 86:18  <b>describe</b> 46:13 190:25  202:12  <b>described</b> 79:7 97:5 128:19  131:9 195:24 201:23  <b>describes</b> 188:14 199:1  <b>describing</b> 46:4 175:11  176:14 178:17  <b>Description</b> 7:2 8:2  <b>Despite</b> 120:24  <b>destroying</b> 19:17 134:22  135:12 136:16  <b>determination</b> 33:13 97:24  174:12 220:13  <b>determine</b> 30:13 97:1 105:3  105:11 125:20 126:13  132:4 170:7 173:8 179:15  222:8 227:16  <b>determined</b> 261:9  <b>determining</b> 30:24 31:20  32:17 33:2 97:2 98:6  170:21 185:7 222:22 228:7  232:8 270:21 271:5,18  <b>develop</b> 26:15 51:6 53:12,22  53:25 54:2,7,12 106:9  <b>developed</b> 52:15 54:24 56:5  56:12 67:15 276:8  <b>developing</b> 26:1 27:17 51:6  52:17 54:11 55:9 56:3,4  58:18  <b>development</b> 54:18 145:15</p>
---	--	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

7

<p>145:17  <b>deviation</b> 246:22  <b>deviations</b> 238:1,9  <b>dial</b> 109:3  <b>diamond</b> 173:17 174:4,11  <b>DIANE</b> 4:8  <b>differ</b> 48:18 83:7  <b>difference</b> 23:7 34:10,22  35:4 41:2 91:24 156:10  168:16 222:4,9  <b>differences</b> 33:20 164:11  <b>different</b> 16:10 22:4 23:18  31:23 43:6 48:25 65:14  79:23 81:3 87:24 88:1,6  98:1,2 99:11 107:3 123:15  125:9,22 129:10 147:15  148:10 150:3 152:12  155:24 162:17,18 164:9,10  166:6,21 168:12,21 171:9  175:20 177:14 178:21  181:24 187:4 201:8 202:17  203:19,19,22 206:24  209:22 216:21 224:22  235:25 237:10,16 238:24  250:17 252:3 259:17  280:14,17 282:14,17,22  283:4  <b>differently</b> 129:16 244:20  <b>difficult</b> 16:25 21:23  <b>digit</b> 81:11,14,14,15,15  <b>diminished</b> 131:22  <b>direct</b> 71:20 109:11 180:9  202:1 257:8  <b>directed</b> 281:19 282:3  <b>directing</b> 243:4  <b>direction</b> 26:15 31:13 71:10  156:9 157:24 243:24 268:8  268:11 281:10 282:11,17  282:22 283:11 289:14  <b>directions</b> 282:14  <b>directly</b> 79:9  <b>disagree</b> 32:5 33:9 65:21  134:14,24 135:17 238:5  261:15  <b>disagreed</b> 16:12  <b>disagreement</b> 65:8 136:22  155:10  <b>disagreements</b> 16:17  <b>disclose</b> 21:13 274:1 276:18  <b>disclosed</b> 29:22 30:4,7  171:19 250:13  <b>disclosure</b> 45:9 145:15  222:2  <b>disconnect</b> 8:20 147:1  149:20  <b>discount</b> 230:21,25 231:4,7</p>	<p>231:21,23 233:16 249:2,16  <b>discounted</b> 25:8  <b>discounting</b> 222:5  <b>discovery</b> 278:17  <b>discuss</b> 129:23 154:10  198:17  <b>discussed</b> 140:16 237:8  278:14 279:19  <b>discussing</b> 40:10  <b>discussion</b> 16:4 19:19  20:17 32:21 58:8 76:20  85:8 86:11 93:4  <b>discussions</b> 203:11  <b>display</b> 12:21  <b>disputing</b> 148:2  <b>dissimilar</b> 87:17  <b>dissipated</b> 204:5  <b>distinction</b> 179:1  <b>distracted</b> 59:13  <b>District</b> 1:1,2 2:1,2 10:10,10  289:3  <b>diversification</b> 41:7 52:4  55:2  <b>diversified</b> 77:3,12,13 89:19  169:20,22 170:12 172:20  184:3 191:1,4,9,19 199:13  <b>diversify</b> 55:22 56:11  <b>diversifying</b> 41:1 51:12,18  55:10 56:25  <b>divulging</b> 281:23  <b>dkusnetz@gibsondunn.c...</b>  3:23  <b>dmyers@jonesday.com</b> 4:9  <b>doable</b> 193:12  <b>Doctor</b> 14:16 15:18 17:11  25:18,25 29:5 36:1 45:6  48:15 61:11 64:6 79:24  94:23 100:1 103:15,20,25  108:24 130:5 142:8 144:24  188:4 212:8 219:3 227:12  262:13 275:12 277:23  <b>document</b> 26:10,19 191:8  195:20 196:11,17  <b>documents</b> 7:4 97:10  238:23  <b>doing</b> 11:23 21:9,15 22:8  66:8 68:16 72:23 75:6  82:13 93:1 102:19 106:7  113:15,17 124:2 126:17  128:12 138:20 140:8  153:14 161:9 163:9,25  166:18,20 214:22 215:11  219:17 227:9 265:1 266:20  266:22 269:16 276:21  <b>dollar</b> 115:1 217:20 230:4  <b>dollars</b> 63:14 208:22 212:24</p>	<p>214:3 215:18 216:16  219:14 231:11  <b>Dolmen</b> 7:24 198:14 199:11  <b>dominance</b> 101:24  <b>dominate</b> 96:16  <b>dominated</b> 98:22 102:23  <b>dominating</b> 104:22  <b>domination</b> 125:13  <b>doubly</b> 220:22  <b>doubt</b> 54:6 70:18 150:14  210:2 255:20  <b>Dow</b> 8:7 110:19 111:16  <b>Dr</b> 7:3,8,10,12 10:7 11:11,18  14:17 16:5,11,17 18:22  21:5,20 22:5 23:3,15 24:4  24:8,14 28:2 31:8 32:3,24  33:8,21,23 34:7 36:25  38:17 43:7 60:22 63:6,10  63:21,24 64:20 65:5,23  66:9,23 67:10,22 68:7  69:18 70:20 71:17 72:20  75:3,16,17,18 76:11 79:16  85:20 90:9,16 92:22 94:18  103:6 105:23,25 108:7  109:2,11 112:5,23 133:16  133:17,23 135:20 136:18  137:14 138:17 150:24  155:11,20 159:15,19  160:23 161:20 162:13  163:8 164:7 165:4,8  166:19 167:16 168:11  180:6 183:17 192:17,23  201:9 203:1 212:23 213:12  213:25 214:20,21,23,23  215:14,14,16,19,22 216:4  216:11,24 217:17,17,25  218:8,14 219:9,9 220:6,25  228:1 235:11 250:7,16  263:1,14,21 269:17 270:17  271:15 278:8,10,19,21  283:8 284:23 285:13,18,20  286:4  <b>draft</b> 265:20 271:1  <b>draftsperson</b> 265:25  <b>draw</b> 101:14  <b>drawn</b> 44:17  <b>drew</b> 150:11  <b>drilling</b> 286:2  <b>drive</b> 50:6  <b>driven</b> 108:15 194:7  <b>driving</b> 96:6 111:12  <b>due</b> 11:14 232:11,18  <b>duly</b> 11:5 289:7  <b>DUNN</b> 3:17</p>	<p><b>E</b> 3:1,1 4:1,1 5:1,1  <b>earlier</b> 20:17 33:15 35:2 39:4  42:14 62:14 65:16 66:12  87:15 122:24 159:5 163:4  184:16,22 187:2 191:8  228:4 260:21 275:19  <b>early</b> 65:24 68:4 79:10 97:5  124:4 275:23 276:1  <b>earn</b> 178:8  <b>earnings</b> 33:24 46:18 47:18  50:8,12 55:5,18 73:22  74:11,20 86:18 92:12,16  98:22 101:12,16,21 103:10  104:17,19 109:18 124:25  125:3,14,17,20 126:3,21  127:2,2,4,11 128:16 129:6  130:17 131:15,20,22 132:6  132:9,15 144:4,6,14,16,16  146:10,17 222:6 223:6  225:4  <b>earth</b> 52:1 158:16  <b>easier</b> 13:9 14:7 266:8  268:21  <b>easiest</b> 12:24  <b>easily</b> 16:24 157:5  <b>eastern</b> 10:13 60:16,20  94:12,16 109:5,9 133:8,12  192:11,15 235:5,9 278:2,6  286:5  <b>easy</b> 12:17 36:11 60:14  <b>Econ</b> 21:23 72:11  <b>economic</b> 19:8,13,21 20:19  20:21,24 21:9,11 22:11  30:19 31:25 37:4,14 43:4  45:2 62:16 64:1 65:4,18  66:10,16,22 73:4 135:2,4,6  135:19 136:1,7,12,21  137:11 138:19 150:25  151:2,7,24 152:7,16  153:10,20 206:11 260:22  260:24  <b>economically</b> 44:6 63:1  137:4 151:18  <b>economics</b> 71:15 151:23  154:5 275:16,18,20 276:6  <b>economies</b> 56:13  <b>economist</b> 26:9 45:17  151:21 153:25  <b>economists</b> 31:2 32:14 39:5  151:13 204:16,19 205:25  <b>economy</b> 20:17 35:17  <b>edges</b> 92:23 269:25  <b>educate</b> 139:14  <b>Edwards</b> 8:9 208:13,19  209:21 210:3,9,15 211:6  <b>Edwards'</b> 209:12</p>
--	---	--	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

8

<p><b>effect</b> 29:21,24 30:3 41:13 45:13 103:11 132:4 134:19 135:8 139:1,9 148:10 150:25 226:20 232:12 250:11 253:15,19 <b>effectively</b> 33:7 160:6 <b>effects</b> 67:12 225:3 250:15 <b>efficiency</b> 31:20 32:18 33:2 33:13 227:20 228:7 <b>efficient</b> 30:14,21 32:10 33:10 228:2 <b>eight</b> 18:3,13 70:15 80:20,24 89:7 90:24 91:3,9 93:17 95:5 155:14 156:2 160:11 160:14 161:24 164:21 166:16 167:1,6,7,20,21,22 168:1 171:15 174:20 175:14 189:14 190:21 228:14 229:13 234:14 256:22 263:7 <b>eight-</b> 18:20 <b>either</b> 34:11,13 70:3,14 75:1 100:9,15,17,22 101:6 105:10 155:19 190:25 201:7 253:8 260:3 268:5 273:21 <b>electricity</b> 147:21 <b>element</b> 191:14 <b>elements</b> 22:22 23:16 25:12 139:14 <b>Elliot</b> 5:4 195:15,23 285:11 <b>Elliott</b> 1:8 2:8 4:17 <b>EMILY</b> 3:9 <b>emphasis</b> 151:15 <b>empirical</b> 204:23 <b>empirically</b> 238:18 <b>employees</b> 195:16 <b>employs</b> 254:13 <b>enable</b> 203:9 <b>enabled</b> 46:2 <b>ended</b> 165:1 <b>endogeneity</b> 22:24 23:4,5 23:20 <b>ends</b> 110:23 <b>energy</b> 8:21 52:5 53:3 142:2 142:16 145:1,4,18 146:1,6 146:9 147:20 148:15 275:24,25 <b>engage</b> 32:13 <b>engagement</b> 277:9 <b>engagements</b> 276:25 279:1 279:7,11 <b>engages</b> 82:3 <b>enlarge</b> 36:5 <b>enormous</b> 265:14 <b>ensure</b> 95:23</p>	<p><b>enter</b> 194:14 <b>entered</b> 11:25 <b>entire</b> 217:16,23 224:5 271:10,22,24 287:4 <b>entirely</b> 155:18 <b>entitled</b> 49:13 <b>entry</b> 28:7,11 <b>envisioned</b> 54:14 <b>EPS</b> 50:5,8 <b>equal</b> 148:16 208:1 245:17 257:15 259:24 260:14 <b>equals</b> 280:22 <b>equipment</b> 52:19 <b>equities</b> 228:17 253:16 <b>equity</b> 7:7 31:9 46:9,10,14 46:15 48:16 49:20 155:3 226:15,17,19 227:20 233:6 236:10 246:4 248:21 251:7 252:3,6 255:25 261:8 <b>Errata</b> 287:9 288:1 <b>error</b> 93:4 <b>errors</b> 221:13 <b>Esq</b> 3:8,8,9,9,10,10,11,21,21 3:22 4:7,8,14,22,22 <b>essential</b> 160:9 163:1,6 169:4,7,10 <b>essentially</b> 18:14 23:24 171:25 283:8 <b>established</b> 66:12,15 <b>estimate</b> 37:15 50:12 67:2 209:5 212:24 214:1,6,16 214:22 215:17 216:14 217:19 218:8,9,22 219:1 219:12,13,18 <b>estimated</b> 210:11 <b>estimating</b> 215:20 219:11 219:22 <b>et</b> 10:9 280:12 288:3 <b>EUGENE</b> 3:10 <b>eugenecanjels@sec.gov</b> 3:14 <b>Europe</b> 142:4,20 <b>European</b> 112:14 <b>evaluate</b> 29:21 30:3 46:17 47:18 48:6 63:6 102:15 139:8 229:18 253:21 <b>evaluated</b> 63:24 234:13 <b>evaluating</b> 41:14 42:1 100:14 238:11 251:20 252:9 <b>evaluation</b> 24:9 25:5 268:19 <b>event</b> 22:23 29:7,8,11,12,20 30:2,12,17 33:3,14,19 34:13,23,25 35:5,8 46:9 54:16 66:1,2 72:12 76:11 76:14 77:24 78:12 82:11</p>	<p>82:20 84:17,24 85:2 95:16 96:14,23 98:20 100:6,13 106:10,23 138:2,25 151:17 152:7 154:13,22 155:3,4 157:15 158:17 161:7 163:3 163:11,19 173:9 179:23 185:8,20 187:22 189:15,21 191:5,17 194:12 196:22 226:6,12,13,23 227:4,16 228:6 229:16 233:6 234:20 237:21 238:8,11 243:21 244:5,9 245:19 264:23 <b>events</b> 62:11 65:12,24 66:6 119:9 158:15 181:18 208:2 220:7 <b>eventual</b> 20:1 <b>eventually</b> 139:4 196:5 <b>evidence</b> 43:16,18,25 205:5 256:14 258:3,8,22 259:8 259:11 <b>evident</b> 67:8 <b>ex</b> 104:25 107:2 <b>exact</b> 27:23 92:21 117:10 184:9,11 201:18 230:3 254:25 <b>exactly</b> 19:16 20:7,8 65:10 86:24 135:11 139:12 159:10 170:13 177:8 255:8 <b>examination</b> 6:6 11:4,16 <b>examined</b> 11:5 289:6 <b>example</b> 20:4 85:23 100:7 100:19 103:4 106:13 112:21 118:21 136:10 266:4 282:24 <b>examples</b> 131:25 <b>Excellent</b> 216:10 <b>exception</b> 149:20 206:15 <b>excerpts</b> 271:8 <b>excess</b> 134:6 <b>Exchange</b> 1:4 2:4 3:4 10:8 11:20 <b>exclude</b> 167:12 <b>excluded</b> 33:23 73:22 74:12 74:21 163:23 191:9 254:12 <b>excluding</b> 73:18 186:9 <b>exclusive</b> 274:25 <b>excuse</b> 34:15 42:6 59:23 84:25 109:15 128:2 231:3 232:1,3 240:20 243:7 245:22 <b>execute</b> 236:5 237:11,17 <b>executed</b> 237:14 <b>executing</b> 236:2 237:10,16 <b>executive</b> 175:10 <b>exercise</b> 19:6 21:8,13 22:8 23:14 43:4 44:7 45:2 68:16</p>	<p>72:14 92:25 167:17 168:10 215:10 <b>exercises</b> 21:20 156:19 265:16 <b>exhibit</b> 7:3,4,6,8,8,10,10,12 7:12,14,15,17,18,19,20,21 7:22,24 8:3,5,6,7,9,10,12 8:13,14,17,19,21 9:5,6,7,8 9:9 14:18,23 15:1,2 25:15 25:19 35:21,23 36:1,12,15 36:24 39:10,13 40:21 42:6 44:5 61:12 77:9 79:10,13 80:1,2,5 81:4,4 83:17 87:15 95:8,10 110:4,7,15 110:18 111:23,24 112:2,2 114:9,11 115:20,21 117:12 117:15 118:18,22 119:14 120:17,19 130:3,6 133:14 133:18,18 141:22,25 142:1 142:14 145:11 146:20,24 147:12 149:16,17 165:11 165:13 175:24 176:2 180:10,11 181:4,8 183:9 188:7,10 195:10,12,13,14 195:17,22 197:8,11 198:9 198:13,23 202:4 208:8,11 212:2,5,6 215:15 216:1,18 217:9 219:2 220:2 240:21 241:6,10,10,11,16,19,23 242:1 243:1,5 256:7 257:14 267:4,6,10 275:9 275:13 278:24 <b>exhibits</b> 7:1 8:1 9:1,3,4,13 12:13,17,22 15:16 28:22 36:22 187:19 190:6 242:22 242:24 267:2 <b>exist</b> 195:8 <b>expect</b> 20:10 148:9 226:13 226:20,22 245:7 246:13 248:23 250:1 253:17 <b>expectation</b> 67:17,25 192:25 193:5 253:11 <b>expectations</b> 128:3,16 <b>expected</b> 103:12 <b>expenditure</b> 53:5 <b>experience</b> 39:7 54:11 104:25 259:25 <b>experiment</b> 218:7 <b>expert</b> 8:9 15:3 17:4 26:8 64:18 140:17 208:12 272:13 273:12,20 276:5 277:10,13 279:12,14 <b>experts</b> 205:22 <b>expires</b> 289:25 <b>explain</b> 32:6 37:7 108:11 173:6 174:25 207:7 268:21</p>
--	--	---	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

9

**explained** 81:1  
**exploration** 146:7  
**exporter** 170:16 171:20  
**exposure** 58:2,5 145:1  
**express** 67:22  
**expressed** 34:15 55:13  
 223:3  
**expressing** 102:4 136:24  
 194:13 213:7,13,20  
**expression** 204:24  
**extended** 14:10 69:13  
**extent** 100:8 102:15 120:6  
 131:14 146:18 178:12  
 187:9 204:11  
**extra** 23:2 280:10  
**extracted** 271:23  
**extractive** 82:5  
**ExxonMobil** 182:16

**F**

**F** 3:5  
**face** 142:7  
**facing** 19:9  
**Facsimile** 3:7,20 4:21  
**fact** 11:13,22 23:25 30:6  
 44:18 56:1 61:8 66:20  
 107:15 128:20 169:5,17  
 172:12 173:15 174:9  
 176:25 183:24 185:16  
 200:16 224:11 252:4  
 259:22,24 260:17 261:16  
**Factiva** 28:23 61:18 201:11  
 201:16 202:14,17,21  
**factor** 31:19 194:11 255:12  
**factored** 174:11  
**factors** 30:23 31:2,11,14  
 32:4,21 33:5 35:1 153:22  
 221:17 227:19  
**facts** 128:22 205:15 207:15  
 221:14 222:10,11  
**factual** 64:2  
**failed** 108:13 207:22  
**fair** 20:9 53:18 76:8 143:16  
 143:18 177:9,10 194:6,22  
 198:25 233:10 283:23  
 284:2,4  
**faithful** 62:8  
**fall** 12:19  
**falloff** 240:11  
**falsify** 46:6  
**familiar** 12:7 38:8 83:1,13  
 203:1 229:23 231:13  
 235:13  
**far** 145:22 186:20 245:4  
 285:6  
**fast** 214:11

**favorable** 194:14  
**feature** 97:21  
**features** 76:17,24 238:3  
**February** 15:24 22:13 26:2  
**feed** 198:6  
**feel** 12:24 13:5 175:12  
 196:11,18 261:3  
**fell** 43:4  
**FERNANDO** 3:10  
**fewer** 238:23  
**field** 22:5 275:15  
**fifth** 58:13  
**fight** 78:20  
**figure** 163:21 176:22 266:16  
**figured** 221:24  
**figuring** 15:5  
**filed** 15:4  
**final** 99:5  
**finalized** 282:6  
**finally** 217:8  
**finance** 205:2 241:13  
**financial** 8:10 53:22 101:9  
 130:11,13 197:12,19,24  
 251:2,24 252:2,8 253:22  
**find** 21:10 36:9 40:24 65:25  
 67:11 79:11 92:21 97:7  
 107:19,21 134:13 164:2  
 184:10 211:14 212:16  
 226:11,13,21,22 253:17  
 256:14 257:25 258:2  
 269:21  
**finding** 34:14 43:6 155:8  
**findings** 281:25 282:4,10  
**finds** 108:11  
**fine** 4:22 21:11 60:12 157:2  
 157:25 192:8 199:9  
**finish** 13:13,14 60:9,11  
 161:15  
**finished** 122:14 161:15,17  
 161:22 215:23  
**FINRA** 241:2,21  
**firm** 20:7,14 47:6 77:22  
 78:10,18 84:14 96:6  
 100:10 106:15 110:24  
 111:4,5 113:11 155:14  
 156:2 159:16 160:14  
 161:24 162:6,7 166:16  
 167:6,7 170:3 171:15  
 174:20 175:14 186:7,15  
 190:21 205:14 206:3  
 207:12,22 221:21 245:9  
 246:5,8 248:15 249:20  
**firm-specific** 246:15 248:9  
 248:23 249:7,24  
**firms** 18:4 39:18 40:25  
 46:17,19,22,24 47:3 77:7

78:4,6 84:12 85:12 93:18  
 95:6 98:4 99:8 106:15  
 155:20 159:18 160:11  
 164:3 170:2,11 177:18,19  
 177:25 178:16 182:13  
 204:10  
**first** 9:4 11:5 14:23 27:14  
 36:11 43:3 61:20 76:18  
 105:24 109:23,24 110:22  
 112:13 124:20 130:3  
 133:14 144:3 145:16,17  
 146:8 147:3 148:8 156:12  
 156:17 165:11,25 176:3  
 195:10 209:14 222:16  
 253:21 256:3,8 265:7  
 270:23 271:1  
**five** 234:24 277:20  
**fix** 94:7 264:13  
**fixable** 264:12  
**fixing** 280:16  
**flavor** 37:14  
**flip** 85:23  
**flow** 25:8 130:18 131:20  
 138:7 248:7  
**flows** 222:13 223:23 252:5  
 253:2 255:21,22  
**focus** 32:14 55:20 138:15  
 141:20 209:10 228:14  
 259:5  
**focused** 55:15 76:15 77:24  
 78:13 92:17 138:2 185:9  
 185:17 228:12,18 229:12  
**focusing** 138:13  
**follow** 31:6 38:15 85:25  
 160:13 163:25 167:11  
 212:17 246:2  
**follow-up** 285:4  
**followed** 112:14  
**following** 16:4 42:20 155:19  
 232:23  
**follows** 11:6 151:17  
**footnote** 40:7 110:1,20  
 111:16 114:8 115:19  
 116:20 117:19 120:15  
 124:10 202:9,12 219:24  
**footnotes** 85:24  
**footprint** 106:16 107:5  
**forecast** 25:12 188:3 200:17  
**foregoing** 289:7  
**foreign** 86:14  
**forget** 230:2  
**forgets** 14:11  
**forgetting** 245:17  
**form** 169:3 181:9 223:22  
 233:16 249:14  
**former** 217:25

**forming** 23:2 63:5  
**forms** 131:7  
**formulation** 16:11  
**forth** 265:23 289:12  
**Fortner** 5:8 10:16  
**forward** 61:25  
**fossil** 145:19,24  
**found** 42:22 70:22 134:10  
 189:23 197:2 237:22  
 253:15 258:13 260:15  
**foundation** 21:17 118:15  
 129:13 220:16 224:25  
 262:4  
**four** 81:15 242:3,8 272:20  
**fourth** 114:6  
**fragility** 259:1  
**fragmented** 44:9  
**framework** 218:13  
**framing** 261:4  
**frankly** 19:5 20:12  
**free** 12:24 13:5 83:12 196:12  
 196:18  
**Freeport** 94:5 95:5  
**Freeport-McMoRan** 94:3  
 95:2  
**frequent** 228:15  
**frequently** 14:20 109:14  
 124:21 227:23  
**Fresnillo** 115:13  
**Friday** 1:16 2:17 10:1 112:14  
 113:24 240:3  
**front** 14:9 36:4 39:19 133:17  
 212:7 216:1  
**FSR** 173:13  
**FTSE** 110:23  
**fuel** 144:4 147:21,22  
**fuels** 145:19,25  
**full** 53:13  
**functional** 173:13  
**fundamental** 232:6 236:16  
 247:2,14,23,24 248:5,6,8  
 248:24 249:7 250:2,4  
 262:10 284:22  
**funds** 274:11  
**further** 109:19 130:25  
 250:22 284:24 289:15  
**future** 25:9 53:7,7 128:3  
 144:9 222:6 223:23 255:23  
**futures** 128:8,11,14

**G**

**G-I-T-S** 83:2  
**gain** 67:6,16 193:6 204:9  
 214:7,22,24 215:20 216:13  
 216:18 219:11  
**gained** 68:1 119:4 199:18,24

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

10

200:16 217:24  
**gainers** 116:1  
**gaining** 212:19 213:19,21  
 214:5 217:15,22 218:12  
**gains** 112:16 114:15 115:11  
 206:12 281:3  
**game** 207:6 217:6  
**garbled** 178:23 215:17  
**GARRISON** 4:18  
**gas** 182:13 275:20  
**gchepiga@paulweiss.com**  
 4:23  
**GDP** 25:10 53:8 150:14  
**gears** 189:12 250:6  
**general** 18:17 26:3,5 30:16  
 48:21 71:24 90:5 98:10  
 108:15 205:10 228:16  
 266:9  
**generally** 20:5 31:2 32:23  
 37:24 38:4 39:5 43:8 49:23  
 49:24 113:8 149:21 150:4  
 157:19 196:1 244:23  
 270:16  
**generating** 102:9 236:21  
**Geoff** 285:11  
**GEOFFREY** 4:22  
**geographies** 57:1  
**geography** 56:15  
**germane** 205:23  
**getting** 15:12 46:23 65:22  
 99:16 136:11 148:20  
 153:11 195:25 219:11  
**giant** 119:4  
**GIBSON** 3:17  
**GITS** 83:1,5,7  
**give** 48:8 50:15 58:25 59:18  
 156:20 164:4 173:24  
 211:15 224:18 259:14  
 282:13,24  
**given** 157:22 168:3 205:11  
 218:21,22 245:14 253:12  
 253:15 271:2 287:7  
**gives** 24:2 118:24 272:20  
**giving** 131:25 271:16  
**Glen** 5:8 10:15 109:1 285:23  
**Glenn** 1:14 2:14 6:5 10:7  
 11:3 43:22 59:10 103:17  
 161:15 199:5 216:22 286:4  
 287:3,16 288:2,25  
**global** 86:12 87:1 99:4,4  
 147:4 149:20 150:2 163:22  
 257:20  
**globally** 77:3,12,13 89:19  
 169:19 172:19  
**go** 11:21 12:4 14:15 21:4  
 25:12 28:15 31:18 38:2

40:20 41:22 43:22 44:10  
 47:7 48:9 57:15 59:10  
 60:14 73:21 74:1,15 79:24  
 87:21 94:6,8 100:1,21  
 104:25 107:19 109:19  
 115:24 119:20 120:2 126:7  
 129:23 133:2,2 139:15  
 144:22 163:10 165:7 166:4  
 168:13 183:9 206:5,12  
 213:5,24 215:6 216:22  
 218:25 234:23 250:22  
 257:11 266:12 267:10,12  
 276:22 277:19,24 285:21  
**goal** 78:8 204:18  
**goes** 44:16 61:25 76:3  
 115:19 136:13 149:25  
 155:7 202:24 215:4  
**going** 15:6 22:16 27:18 28:4  
 28:5 39:21,23 54:3,25 59:8  
 60:15,19 70:8 79:8,24  
 83:17,18 84:10 85:7 86:24  
 87:19,22 92:20 94:11,15  
 102:2 104:12 109:4,8  
 122:23 129:19 130:5 133:7  
 133:11 141:25 144:23  
 146:23 148:21 149:16  
 158:23 170:9 173:5 180:9  
 181:7 182:24 185:1 188:4  
 188:11 189:5 192:3,10,14  
 195:12 205:2,8 206:14  
 208:11 217:17 219:4 224:6  
 228:12 232:12,20 235:4,8  
 240:20 246:7 250:6 253:1  
 275:12 278:1,5,12 279:18  
 280:13 286:5  
**gold** 5:6 18:16,18 27:14  
 86:19 100:4,5,15,25 101:7  
 101:15 114:25 115:12,12  
 116:1 183:19 189:13,13,18  
 190:18,19,22  
**good** 11:18 58:23 98:10  
 99:6 111:6 148:19 152:23  
 162:2 163:24 170:21  
 185:12 203:6 211:5 215:1  
 216:10 266:11  
**Goodin** 1:24 2:18 10:23  
 289:4,23  
**governance** 176:10  
**government** 81:12 82:9  
 224:12 273:7  
**grace** 220:8  
**grades** 267:21  
**Gradillas** 10:16,23  
**grading** 267:16  
**gradual** 67:9  
**grandmother** 262:1

**grant** 277:17  
**great** 53:5 261:25  
**greater** 40:25  
**GREGORY** 3:8  
**ground** 11:22  
**grounded** 270:14  
**grounds** 135:18  
**group** 5:6,7 18:3 26:22,25  
 27:9 130:25 145:1,4  
 146:10 178:7,9,13,13  
 207:1 243:23  
**groups** 86:14 181:24  
**Growing** 8:20 146:25  
**growth** 195:25  
**guess** 21:21 27:22 106:13  
 123:13 127:13 150:12  
 246:16  
**Guy** 1:8 2:8 4:17 5:4 195:15

---

**H**


---

**H16** 18:8  
**H6** 163:9  
**H7** 155:21  
**H8** 17:20 18:3,5 91:10 93:8  
 155:19 156:5,17  
**half** 80:16 103:3 163:9 178:6  
 178:8 251:23 252:16  
 253:19  
**halfway** 195:22  
**hand** 284:8  
**hands** 204:13 207:3  
**hang** 161:14 198:3  
**happen** 66:22 221:11 263:6  
 282:3  
**happened** 104:4 251:21  
**happens** 239:24  
**happy** 60:10,11 132:12  
 238:25  
**hard** 12:12 36:9 39:22 50:3  
 53:24 66:17 107:1 108:3  
 163:21 216:23 284:1  
**harder** 51:1  
**head** 81:21 97:11 121:11,13  
 150:20 170:13 172:7 184:7  
 186:11 213:12 229:3,11  
 231:6,9 272:22 274:6  
**headed** 210:23  
**header** 28:7 142:3  
**headline** 111:19  
**headphones** 158:21  
**headset** 94:7 158:10  
**hear** 24:12 84:21 94:2  
 103:19 152:22 156:12  
 159:4 173:18 206:5  
**heard** 94:4 255:24  
**hearing** 94:5,23 99:22

108:25 126:7 159:13  
**heart** 138:19  
**heat** 70:20  
**heavily** 145:19,24  
**heavily-weighted** 110:23  
**hedges** 130:16 131:5,14,18  
 132:7,18  
**hedging** 131:7,7  
**held** 48:18  
**help** 130:17 131:19 248:3  
 271:13  
**helped** 101:4 113:24 114:19  
**helpful** 65:9 85:9 196:11  
 267:1  
**helping** 142:10  
**HENRY** 4:14  
**hereunto** 289:19  
**high** 111:13 148:18 235:23  
**higher** 32:9 110:23 146:9  
 147:24 148:4 211:21 215:7  
 231:24 232:1,1,10,18  
 236:22 244:24  
**highlighted** 113:23  
**highlighting** 111:12  
**highly** 147:23 253:13  
**hired** 272:13  
**history** 228:15  
**hklehm@jonesday.com**  
 4:15  
**HN** 17:20  
**Hobart** 7:19,20 116:25  
 117:16,21 118:1,23 119:9  
 119:15  
**hold** 47:11 153:13  
**holders** 252:5  
**holding** 153:15 208:2  
 216:12  
**holistic** 33:5  
**holistically** 272:2  
**home** 11:12,14  
**homes** 11:23  
**honest** 33:9  
**hope** 65:9 152:20 255:22  
**hour** 59:8 192:4  
**hours** 27:16,24 265:18  
**Houston** 4:5  
**HP** 8:3 181:9  
**HSBC** 16:20 17:8,16,23  
 23:16 70:15 71:4,21 74:19  
 77:18 79:16,20 80:10,13  
 80:20,23 89:3 113:16  
 149:2,20 150:1,17 155:14  
 155:17 156:2,4,16,21  
 157:10,13,16 158:2,14  
 168:20 185:15,18,23  
 256:21 257:20 260:1,16

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

11

<p>262:23  <b>Hubbard</b> 1:14 2:14 6:5 7:14  10:7 11:3,11,18 14:17 24:8  24:14 60:22 94:18 109:2  109:11 112:5 133:16  150:24 159:15 161:20  192:17,23 203:1 215:14,22  220:25 235:11 250:7 278:8  278:10,21 284:23 285:13  285:18,20 286:4 287:3,16  288:2,25  <b>Hubbard's</b> 7:3,8,10,12  <b>hurt</b> 99:8  <b>hurting</b> 252:6  <b>hypothesis</b> 30:21 37:13  41:8 42:23  <b>hypothesize</b> 246:12  <b>hypothetical</b> 251:20 252:10  253:19</p> <hr/> <p style="text-align: center;"><b>I</b></p> <p><b>i.e</b> 28:2  <b>idea</b> 84:13 283:5  <b>Ideally</b> 89:24  <b>identification</b> 25:16 35:24  39:11 80:3 110:5,16  111:25 114:12 115:22  117:13 118:19 120:20  141:23 146:21 175:25  181:5 188:8 197:9 198:10  208:9 212:3 241:7,17,24  243:2 267:7 275:10  <b>identified</b> 95:6  <b>identifiers</b> 97:17  <b>identifies</b> 241:19  <b>identify</b> 14:19 98:13 110:11  111:18 223:15 225:8,19  234:14 246:7 257:14  <b>IHS</b> 17:8 22:17,20  <b>li</b> 120:2  <b>III</b> 4:14  <b>illustrate</b> 77:10 79:12  213:17  <b>imagine</b> 32:10 95:22 129:2  158:18 162:3 179:21 232:4  233:25 249:17 282:2  <b>immediate</b> 198:3  <b>impact</b> 45:10,15,18,20,22  108:10 131:13,15,20  137:15,25 138:12 152:7  234:4 246:21 248:20,21  254:14  <b>impacted</b> 102:5  <b>impairment</b> 19:14,19 20:12  20:13,16 22:2 45:9 134:18  135:9 136:10 137:16,25</p>	<p>151:1 152:3 220:22 221:16  221:17,22 222:1,16,16  223:8 224:4,9,17 251:1,11  251:22 252:10,15 253:20  254:14 255:12,13 268:3,15  268:16  <b>impairments</b> 61:5 65:19  221:1,9 251:14 252:4  254:7,11 267:23  <b>implausible</b> 217:11  <b>implications</b> 152:14  <b>implied</b> 213:2 214:11 219:16  <b>imply</b> 67:23 238:17  <b>importance</b> 96:1 175:18  <b>important</b> 16:23 30:13,23  31:18 33:1,12 35:7,13,18  63:8 68:6 74:1,2,14 95:14  95:23 96:5,12 97:14,22  100:4 106:18 107:20 120:1  127:15 132:22 135:21  150:8 151:11 155:23 157:4  169:21 174:15 186:19,21  191:4,10,18,20 201:25  211:14 221:12,17,18  240:17 257:6,7,10 259:20  260:11,25 261:3  <b>importantly</b> 113:7 222:20  <b>improper</b> 91:25 92:17  <b>improve</b> 94:24 252:5  <b>inadvertently</b> 13:10 191:8  <b>incentive</b> 164:10,25 165:18  166:7,12 176:14,15 177:17  181:21  <b>include</b> 15:16,19 77:2,13,25  89:14 92:17 93:1,5 101:7  139:5 167:17 169:14  183:18  <b>included</b> 34:4 36:19 52:5  77:5,7 79:3 91:6,13 93:11  100:15,15,20 157:3 183:7  250:23 279:23  <b>includes</b> 150:2 280:7  <b>including</b> 64:21 73:17 86:19  168:8 183:18 283:13  <b>incorporate</b> 219:19  <b>incorporated</b> 119:24  <b>incorrect</b> 137:20,22  <b>increase</b> 20:10 51:22 58:5  103:8,12,14,14 104:15  108:16 122:18,25 123:1  127:7 144:15 206:24 218:3  256:15 258:4 259:9  <b>increased</b> 69:3 108:14  109:18 116:16 117:3,7,8  124:25 199:19  <b>increasing</b> 68:3 214:1</p>	<p><b>incremental</b> 217:4,22  219:23  <b>increments</b> 230:11,14  231:14 237:15  <b>index</b> 6:1 7:1 8:1 9:1 16:16  16:20 17:8,9,16 18:8 22:17  22:21,22 35:8,13,19,20  43:5 70:15,16,23 71:4,22  73:15 74:20 76:11,12,14  76:17,19,23,24 77:20,24  78:6,8,12 79:1,3,15,16,18  79:20 80:10,13,15,18,21  80:24 82:12,13,19 83:20  84:5,8,16 85:20 87:17 89:8  89:9,14,20 90:2,9,11,24  91:4,7,10,14,25 93:7,14,25  95:3,15 96:5,14,23 97:3  98:11,20 99:13 100:6,10  100:16 101:1 103:6 104:23  106:11,22,23 107:10  113:13,16 116:1 139:5  141:1 148:8,24 149:2,21  150:2,3,18 154:14,15,18  154:24 155:5,7,14,15,18  156:2,4,16,22 157:3,10,13  157:16 158:2,14,17 159:20  159:23 160:3,4,10,12,15  160:17 161:6,25 162:1,3,8  163:7,11,16,18 166:16,17  167:1,6,7,13,20 168:8,20  169:13 174:21 176:23  179:5 180:19,24 183:7,13  184:21 185:18,24 186:10  187:1,13 188:14,16 189:14  190:21 191:19 234:16,18  234:19 256:21,22 257:15  257:21 259:18,25 260:1,3  260:15,16 262:23 263:7,12  264:7,12,17  <b>indexes</b> 44:11 78:20 88:22  140:19 185:23  <b>indicate</b> 38:9 207:21  <b>indicated</b> 12:13 40:3 198:2  287:9  <b>indicates</b> 272:1  <b>indicating</b> 37:22 55:14  <b>indicative</b> 49:2  <b>indices</b> 16:11,13 17:3,16  23:7 28:16 88:22,24,25  109:14 124:22 140:16  141:1,11 148:7 154:10  155:12,13 156:8 157:6,20  256:25 258:6,20 259:10,15  266:3  <b>individual</b> 17:10 22:21  28:16 44:11 49:9 153:21</p>	<p>225:24 232:15 266:12  273:15,21,22,23,25 274:3  274:5,8,9,22,25 281:19  <b>individually</b> 228:19  <b>individuals</b> 274:18  <b>induced</b> 23:5  <b>indulge</b> 147:7,9  <b>industrial</b> 81:12  <b>industries</b> 46:21,22 77:8  79:23 81:6,13,17,22  209:22  <b>industry</b> 16:16 17:3,16  22:16 35:8,13,19,20 75:24  76:11,14 77:23 78:2,7,8,10  78:19 79:4 82:12,19 83:4  84:5,7,16 85:14 86:14,16  88:7 89:14 90:2 91:7,14,25  95:15 96:5,13,17,23 97:3  98:10,19 100:6,16 101:1  106:11,23 139:5 140:16  141:1,10 147:5 148:7  154:10,23 155:5,7,9  160:10,17 168:8 184:21  187:1,12 207:11,21 210:5  210:17,20 211:11,18  234:16,17,19 258:5,20  259:9 269:4,8  <b>Indy</b> 150:14  <b>inefficient</b> 204:6  <b>infer</b> 150:10  <b>inflation</b> 115:2  <b>influenced</b> 248:8  <b>inform</b> 135:13  <b>information</b> 8:22 22:9 24:24  25:4 28:13,19,25 29:21  30:4 32:12 44:18,23 46:1  46:24 47:7,15,23 48:3  50:10,15 52:11 53:11,20  54:10 55:8 64:7 108:8,8  112:21 124:16 138:17,21  142:2,16 153:11,17 154:7  157:24 166:5 173:23  179:13 187:7 207:12 210:3  220:8 222:2 224:2 225:6  240:23 241:2,3,20 250:12  250:19 254:1,2 261:13  275:24  <b>informed</b> 262:2,3  <b>infrastructure</b> 52:18 53:6  54:12,18,20,21,22,23  223:23  <b>initial</b> 210:1 224:1  <b>input</b> 98:23,25 216:3 251:17  270:10  <b>inquire</b> 129:18  <b>inside</b> 221:21</p>
---	--	---	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

12

<p><b>insignificant</b> 250:21</p> <p><b>instance</b> 81:16 82:1 127:16 205:16 246:4 252:13 270:23 283:3</p> <p><b>institutional</b> 273:14 274:19 275:4</p> <p><b>instruct</b> 281:11</p> <p><b>instruction</b> 71:25</p> <p><b>instructions</b> 26:18</p> <p><b>integrating</b> 208:5</p> <p><b>intending</b> 37:4</p> <p><b>intensive</b> 145:18 146:2 147:20</p> <p><b>intention</b> 66:13</p> <p><b>interest</b> 31:16 55:10 114:1 114:20 116:5 194:6,8 249:4</p> <p><b>interested</b> 289:17</p> <p><b>interesting</b> 44:6 63:1,17 66:25 71:7,14 72:13 91:17 135:16</p> <p><b>interference</b> 102:21</p> <p><b>internal</b> 195:19 196:17 197:4</p> <p><b>International</b> 8:7 110:19 111:17</p> <p><b>interpose</b> 13:16</p> <p><b>interpretation</b> 219:6 251:14</p> <p><b>interrupt</b> 144:24</p> <p><b>interval</b> 132:22</p> <p><b>interview</b> 195:14 196:17</p> <p><b>invalid</b> 76:25 162:8,10 163:5</p> <p><b>inventory</b> 262:14</p> <p><b>inverted</b> 260:14</p> <p><b>investment</b> 134:21 136:15 222:14</p> <p><b>Investments</b> 52:23 53:2</p> <p><b>investor</b> 151:10,12,19 152:10 154:7 260:25 261:3 261:10,12,12,19,22 262:2 262:2</p> <p><b>investor's</b> 153:18,21 262:10</p> <p><b>investors</b> 47:23 115:2 153:6 230:20 232:25 261:9,14 262:6</p> <p><b>involve</b> 88:15</p> <p><b>involved</b> 172:8 184:6 230:22 282:1</p> <p><b>involves</b> 88:14 233:11</p> <p><b>IQ</b> 28:15,22</p> <p><b>iron</b> 51:25 55:4,15 86:19 92:12 98:22 101:10,24 102:6,16 103:6,9 104:15 105:4 106:5,12,17,24 109:14,16 113:19,21 115:16 116:10,15 117:3,6</p>	<p>120:4 122:3,7,18,18 123:8 123:11,12,16,17 124:7,16 124:22,23 125:3,5,8,14,17 125:22,24 126:4,15,21 127:1,5,7,14,19 128:8,11 128:14,25 131:15 132:16 141:17 150:7,17 189:9</p> <p><b>irrelevant</b> 78:23 134:11,13 134:16 137:4,15,20,21 138:24 205:18</p> <p><b>IRS</b> 273:9</p> <p><b>issue</b> 20:23 23:22 84:14 89:1,5 90:7 93:3 102:2 134:10 135:3 137:15 154:9 170:4 194:25 224:23 233:4 233:6 241:14 251:18 283:20</p> <p><b>issuer</b> 231:15 241:12</p> <p><b>issues</b> 52:18 135:23 136:7 138:19 220:13 221:21 224:12 227:22 277:12</p> <p><b>item</b> 26:17 245:4 267:18</p> <p><b>items</b> 26:11,12 61:20,23 62:3,5 81:5 272:9</p> <hr/> <p style="text-align: center;"><b>J</b></p> <hr/> <p><b>J</b> 1:24 2:18 289:4,23</p> <p><b>Jackie</b> 285:15</p> <p><b>JACQUELINE</b> 4:7</p> <p><b>January</b> 22:2 45:7 134:19 138:3,13,16 140:3 222:17 225:15 226:8,25 227:16 242:2,4,17 243:5 250:13 252:13</p> <p><b>Japanese</b> 112:15</p> <p><b>Job</b> 1:25</p> <p><b>joint</b> 30:22</p> <p><b>Jones</b> 4:4,11 8:7 110:19 111:17</p> <p><b>Journal</b> 7:15 114:8 115:11</p> <p><b>judge</b> 137:8 186:6 271:17</p> <p><b>judgment</b> 33:7 98:8 179:9 184:24 185:1,3 186:20 190:8</p> <p><b>judgments</b> 178:3</p> <p><b>jump</b> 99:14 101:25 143:16</p> <p><b>June</b> 1:16 2:18 10:1,12 287:7 288:2 289:21</p> <p><b>junior</b> 226:16,19</p> <p><b>juniors</b> 119:16</p> <p><b>jurisdictions</b> 57:2</p> <p><b>jury</b> 136:13</p> <p><b>Justice</b> 273:9</p> <p><b>justification</b> 157:21 158:1 191:13</p> <p><b>JV</b> 196:4,24</p>	<p><b>jvallette@jonesday.com</b> 4:8</p> <hr/> <p style="text-align: center;"><b>K</b></p> <hr/> <p><b>keep</b> 32:22 63:13 158:23</p> <p><b>keeps</b> 167:9</p> <p><b>kept</b> 242:10 272:12</p> <p><b>Kevin</b> 5:6 27:15 187:5</p> <p><b>key</b> 37:18,23 38:5,16 40:1 42:8,11,22 51:11,18 72:5 72:21,22,24 73:5,6 147:21 149:9 201:8 266:22 271:2</p> <p><b>keyword</b> 62:7</p> <p><b>kick</b> 231:4</p> <p><b>kids</b> 158:22</p> <p><b>kind</b> 28:10 54:12 57:13 86:15 87:24 99:1 104:21 109:20 183:15 222:11 256:17 262:13 264:16 278:22</p> <p><b>kinds</b> 96:16 273:1</p> <p><b>Kirsch</b> 3:22 11:8,10 13:21 13:24 14:1 21:16 24:11,17 29:23 37:25 38:2 43:1,17 43:21 44:20 48:8,12 51:8 52:24 53:1 56:20 59:3,6 60:7 63:11 68:13 70:4,8 72:8 73:19 74:25 75:12 84:20 85:6 87:20 89:23,25 90:3 96:9 102:7 103:17,25 111:22 112:3 118:14 119:12 123:23 126:9 127:20 129:12,17 130:1 133:5 135:25 137:18 138:4 143:23 154:25 159:8,12 161:14 162:11 169:24 176:16,19 178:18 179:7 184:1,17 185:21 186:17 188:22 189:2 192:3 193:9 193:19 196:9 199:4 200:2 200:19 206:4 207:24 210:21 212:21 216:20 220:15 224:24 225:12 232:22 235:2 237:2 244:2 245:25 246:23 247:5,17 249:12,14 255:5 270:7 274:15 285:8,22</p> <p><b>KLEHM</b> 4:14</p> <p><b>knew</b> 23:15</p> <p><b>know</b> 13:6,21 16:16 19:4 20:4 27:1,1,4,5,7,8,9,11,16 28:14 29:4 31:6 36:16 44:1 44:7 45:17,24 49:5 50:10 53:25 57:9,17 60:2 63:4,14 66:5,24 73:10,13,16 74:10 74:17 75:1,5,7 76:1 78:15</p>	<p>79:17 80:14 83:5 84:3 85:13 86:13 87:1 88:13 90:8 94:23 96:5,25 97:9 104:3,21 107:4 111:21 112:5 117:21 121:9,13 123:19 127:9,16 128:5,5 128:22 131:23 132:2,24 139:14 148:21 151:10 155:23 159:4,22 161:1,10 162:9,19 163:4 166:18,20 166:23 167:8 169:6,10 170:12 173:22 175:21 177:24 179:10 181:2 185:4 191:20 195:4 196:9 197:5 197:7 200:5 201:19,22 205:6 210:4,22,24 211:4 211:20 218:10 221:15 228:16 229:4 230:24 231:2 235:24 239:13,23 240:16 246:17 247:19 254:21 255:7 257:9 262:21 263:4 272:11,12,16 274:1,17 281:21 282:7</p> <p><b>knowing</b> 22:8 135:12</p> <p><b>knowledge</b> 26:4,6 127:23 136:14 138:23 172:10 209:16 281:18,21</p> <p><b>known</b> 152:11,11 222:3 223:11 224:3,20</p> <p><b>knows</b> 144:8</p> <p><b>KUSNETZ</b> 3:21</p> <hr/> <p style="text-align: center;"><b>L</b></p> <hr/> <p><b>L</b> 4:8</p> <p><b>L-E-H-A-V-Y</b> 49:17</p> <p><b>lack</b> 21:16 64:22 118:14 220:15 224:24</p> <p><b>lacks</b> 129:12</p> <p><b>lag</b> 13:11</p> <p><b>language</b> 110:10 256:5 271:13</p> <p><b>large</b> 42:24 46:10 77:2,5,13 80:17 86:13 90:21 163:22 169:19,22 170:2 172:19 184:3 186:10 190:22 191:9 207:20 214:11 221:19 227:22 228:17 233:25 236:9 255:21 273:25,25 274:3</p> <p><b>large-scale</b> 54:12</p> <p><b>largely</b> 86:13</p> <p><b>larger</b> 22:7 42:11 45:3 229:5 238:2,9,12</p> <p><b>largest</b> 58:10,15 79:19 80:9 172:4,13 189:9 190:19 193:24 242:15</p>
--	--	--	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

13

late 65:24 68:4 275:25	275:15 276:23 277:3	57:10 58:9 69:24 80:15	manufacturers 102:18
law 151:8,20	278:25 279:5,6,15,16,17	83:10 107:7 149:8 155:17	103:5
laws 154:4	listed 62:4,5 97:6 156:22	168:14,15 170:11 172:5,23	manufacturers' 103:10
lawyer 137:2	163:16 164:12 165:18	189:23 215:13 228:19,20	104:17
lawyers 135:3	166:7,12 167:22 168:3,22	234:9,10,13 239:2,4,6	manufacturing 102:3
layers 52:16	169:5,17 180:6 183:25	278:24	mapping 268:8,11
layman's 235:18	190:5 249:25 271:21	looking 36:24 50:25 64:20	Marathon 182:16
lead 67:3 114:14 119:1	276:12 277:9 279:15	76:5 82:23 85:19 87:3,12	March 61:21,25 62:3,12,21
240:13	listing 142:20 143:2 147:15	97:12 107:2 111:23 138:17	64:8,24 65:12,12,24 66:4
leader 204:6	lists 165:19 171:9 177:4	144:25 145:3 150:1 155:6	68:4,10,18,25 69:6,8,16
leading 113:9 173:17 174:11	179:24 180:2 276:9	168:10,19,22 172:19 173:2	70:2,14 71:3,21 74:8,18,19
leap 200:8	literal 28:3 125:15	175:19 178:1 187:25 202:7	75:25 195:15 201:17
learn 48:6 70:25 102:23	literally 134:23 135:1 136:17	222:24 259:2 268:23	202:18,22 283:14
learned 13:7 209:1	literature 37:22 38:15 39:2	looks 33:6 122:9 142:18	margin 261:24
leave 180:10	98:6,9 205:1 206:11	195:19 243:13	marginal 125:25 127:5
led 110:23 115:2	212:18 269:12,13,18,20	Lori 1:24 2:18 10:22 159:3	128:3 261:10,18,21 262:2
left 79:22 149:18 178:5	270:16	285:23 289:4,23	Mark 3:22 59:13 112:1
285:3	litigation 272:24	loser 148:16	marked 9:3,4 14:22,25
legal 20:21 56:23 135:3	little 13:9 36:5,9 154:11	lost 91:1 130:17	25:16 35:24 39:11 79:25
137:4 152:14	158:24 175:6 195:22	lot 53:6 77:7 95:18 99:16	80:3 110:5,16 111:25
legally 136:25	201:24 244:19 253:13	132:23 136:18 168:25	114:12 115:22 117:13
Lehavy 49:17	268:20 278:22	181:17 211:21 218:23	118:19 120:20 130:2
lengthy 104:9 224:5	live 66:9	229:23,25 230:10,12,16	133:13 141:23 146:21
lens 26:9	lived 53:3	231:3,4,4,14,20 232:19	165:10 175:25 181:5 188:8
let's 20:7 51:16 70:21 94:6	LIVIA 4:22	233:5 237:15,17 275:19	195:9,13 197:9 198:10
148:7 158:23 183:10 192:5	LLP 3:17 4:18	lots 25:12 62:25 79:23	208:9 212:3 241:7,17,24
213:24 248:13 253:9 261:8	log 103:24	230:15,21,21,23 232:2,3,3	243:2 267:7 275:10,13
264:8	logarithms 34:18	243:16,16 249:21	market 7:17,18 17:8 19:24
level 38:5,10,11,12 39:9	logic 42:20 240:12,14	low 229:4 242:10	20:9 24:1 30:15,21,24 31:4
40:10,18 41:4,10,15 42:1,4	logs 74:22	lower 57:1 207:10 211:22	31:9 32:4,10 33:2,10,13
42:17,18 43:7,15,15 44:3	London 121:15,22	246:13,14	48:19,23 49:7 58:1,19 59:1
44:15 72:18 73:2,8 95:24	London's 116:1	lowered 64:13	59:19 66:19,24 67:5,14,25
111:9 141:2 172:14 173:6	long 25:9 53:3 57:9 104:12	lumped 203:24	76:3 80:16 111:18 112:7
257:24 258:22	114:21 129:20,23 133:3	lunch 129:19 169:19	115:20,25 119:24 123:8
levels 40:25 41:21 45:1 53:8	158:24 255:21	Lynch 274:11	128:8 134:3 139:4 174:16
81:11	long-pursued 114:1		175:8 192:21,24 193:5
lfine@paulweiss.com 4:23	long-term 126:16 127:18		195:20 196:16 204:11
likelihood 218:12	128:14,21 130:15 131:1		206:22 207:8 209:1 213:3
limited 1:8 2:8 131:8 177:5	132:1 164:10 165:18 166:7		218:10,22 221:23 222:3,18
line 12:5 60:10 112:8 129:22	176:14,15 177:16 181:21		222:20,23 223:7,11,21
143:7 158:20 173:10 178:2	longer 126:4		224:3,4,16,21 227:17,20
184:24 186:8 192:5 218:2	look 23:16 26:8 30:8 31:2,23		228:1,7,10,25 231:15
232:7 242:2 288:3	32:19 36:8 39:23 40:22		233:10,14 235:12 236:8,10
lined 169:8	41:22 44:8 57:16 69:23		237:9,18 238:3,9 243:21
lines 97:6 172:6 178:23	73:21 74:1 75:24 76:2		245:3,7 246:5,6,10,18
182:6 191:3,14 192:2	79:14 84:7,18 85:3 89:11		247:7 249:2,9,16 253:11
Linnay 47:5	99:20 109:23 111:10,14		254:1 261:11 280:2 283:23
liquid 238:22 239:3 246:6	113:22 120:2,14,23 130:14		284:2,4,7
liquidity 31:3,19,22 228:8	130:21,22 140:18 144:18		market's 20:9 30:18 133:24
228:10,24	144:18 152:4 155:20		marketplace 48:5 77:4
list 18:21 25:25 26:13 93:17	163:21 168:13 173:12		254:2
113:2 160:24 162:21,22,24	178:4 179:14 183:9 201:3		markets 112:14 261:25
163:2 171:15 174:21	211:19 218:2 238:21,22		262:5 275:21
175:14,15 177:1,18,19,25	242:1,2 250:18 251:24		Markit 22:18,20
179:16,16 180:1,4 182:12	252:8 256:4 270:12		marks 286:3
184:9 213:18 263:17,20	looked 31:1 32:3,24 45:25		marriage 104:23

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

14

<b>Maryland</b> 273:6 <b>massive</b> 13:3 181:16 <b>match</b> 269:2 <b>matching</b> 268:1 <b>material</b> 15:13 71:1 151:8 151:18 153:19 <b>materiality</b> 150:25 151:2,13 151:22,25 152:8 153:10,25 260:22,24 <b>materialize</b> 223:20 <b>materials</b> 13:1 26:1 61:12 64:20 65:25 72:5 73:14 75:14 86:21 103:6 140:10 171:8 187:14,24 227:6 278:13,17 <b>matter</b> 10:7 20:6 32:1 56:14 68:9 71:15 75:5 78:24 92:2 97:15 98:8 154:21 184:24 185:7,12 238:14 277:2 <b>mattered</b> 258:14 <b>McMoRan</b> 93:24 <b>mean</b> 17:6 26:5 27:19 28:1 29:10 31:22 32:17 36:16 42:21 43:18 45:16,17 49:24 50:1 51:19 52:10 53:17,25 54:19 55:17 57:4 57:7 62:24,24,25 64:4 68:15 70:10 76:2,3 78:15 79:6 82:2,4,7 88:10,20 92:6,11 105:7 107:5,15 111:7 126:23,25 128:21 135:25 138:8 139:3 141:8 143:25 144:15,24 151:8,21 156:24 157:12 159:22 161:21 162:9 163:25 169:6 172:1 177:7 191:21 194:2 195:5 196:14 203:20 204:2 204:8,9 206:19 207:25 223:19 230:24 231:22,24 234:11,12 236:1,18 238:10 239:10 240:6 244:4 245:2 248:5 258:25 261:21 262:9 264:24 267:22 268:12 269:7,8 273:15 274:16 275:18 280:23 281:1,4 282:16 284:2,17,20 <b>meaning</b> 30:19 37:4 45:2 50:8 <b>meaningful</b> 29:12,15 44:24 <b>means</b> 14:9,11 22:23 50:21 50:25 62:24 66:5 111:9 121:19 163:5 172:17 173:22 191:20 193:20 203:21 215:18 236:13 237:25 238:7 239:16,21 242:6 261:23 276:17	<b>meant</b> 32:7 56:5 112:7 125:24 127:23 129:7,9 235:25 245:18 <b>measurable</b> 45:10 <b>measure</b> 17:20 45:20 91:16 91:16 178:8,15 179:3,4 184:12 268:19 <b>measured</b> 34:17 45:18 74:21 180:19,20 232:21 250:15 <b>measures</b> 17:20 34:18 68:7 81:11 90:14 254:12 <b>measuring</b> 30:18 112:23 234:6 <b>mechanical</b> 33:20 123:18 <b>mechanics</b> 33:18 <b>median</b> 49:25 50:1 <b>medias</b> 61:24 <b>meet</b> 120:3 <b>meeting</b> 251:6 <b>meets</b> 170:10 <b>member</b> 172:11 <b>members</b> 171:13 181:12 <b>memory</b> 27:18 28:4,22 54:3 79:8 87:19,22 101:23 170:9 190:1 228:13 <b>mention</b> 87:11 113:21 115:15 116:6,10 164:14 181:2 224:10 254:24 259:4 273:24 <b>mentioned</b> 18:23 55:3 89:12 141:19 229:16 258:17 <b>mentions</b> 137:22 <b>Mercury</b> 7:19,20 116:25 117:16,22 118:1,23 119:9 119:15 <b>mere</b> 66:20 <b>merely</b> 270:12 <b>merge</b> 281:4 <b>mergers</b> 203:4 <b>Merrick</b> 183:19 <b>Merrill</b> 274:10 <b>met</b> 62:6 66:24 280:25 <b>meta</b> 18:8 <b>metal</b> 27:14 79:20 80:18 81:5,6,17 82:2,3,5 90:21 98:17 100:8 108:14 109:13 109:25 110:11 111:5,6 112:16 113:11 114:16 115:10 116:14,23 121:9,15 122:2 124:21 156:11 <b>metallurgical</b> 171:20 194:8 194:15 <b>metals</b> 7:21 76:12 81:23 85:13,13 86:19 87:10 89:19 93:6,14 95:2,18	107:10,12,16 108:22 110:24 111:4,8,8,12 112:19,21,25 113:5,8,13 113:14 115:3 116:7 120:16 141:16 148:8,24 154:14 159:20 169:13 183:7 184:6 184:9 210:10 264:6 <b>metals'</b> 111:1 <b>method</b> 25:7 46:5 77:1 175:11 178:9 180:23 226:5 <b>methodologies</b> 251:15 <b>methodology</b> 201:21 202:12 223:2 <b>metric</b> 49:24 50:2,3 51:2 82:22 177:21 <b>metrics</b> 31:7 223:5 <b>Metz</b> 16:5,11,17 18:22 21:5 23:3,15 24:4 31:8 32:3,24 33:8,21,23 36:25 43:7 63:6 63:10,21 65:5,23 66:9,23 67:10 68:7 70:20 71:17 72:20 75:3,18 76:11 79:16 90:16 92:22 105:25 108:7 112:23 135:20 136:18 138:17 155:11 159:19 160:23 162:13 163:8 164:7 165:4 166:19 180:6 183:17 201:9 213:25 214:20,21,23 214:23 215:14,16,19 216:4 216:11,24 217:17,17,25 218:8 219:9 220:6 228:1 250:16 263:1,1,14,21 269:17 270:17 271:15 278:19 <b>Metz's</b> 21:20 22:5 28:2 34:7 38:17 63:24 64:20 67:22 69:18 75:16,17 85:20 90:9 103:6 105:23 133:17,23 137:14 155:20 165:8 167:16 168:11 212:23 213:12 218:14 283:8 <b>mic</b> 230:7 <b>microphone</b> 158:10 <b>mid-2011</b> 57:21 <b>middle</b> 28:6 40:23 80:7 143:4 180:13 181:23 198:24 199:10 210:25 257:13 <b>midnight</b> 121:20 <b>midway</b> 115:24 <b>MILLER</b> 3:8 <b>millern@sec.gov</b> 3:11 <b>million</b> 146:10 <b>mind</b> 54:3 73:9 77:16 89:15 107:17 <b>Mine</b> 8:20 146:25	<b>mined</b> 184:15 <b>miner</b> 113:4 115:13 119:5 170:12 184:3 199:13 <b>mineral</b> 56:19 57:19 <b>minerals</b> 53:3 <b>miners</b> 86:13 87:1 102:16 113:14,24 114:19 115:12 115:25 150:2 169:20 172:20 186:10 189:10 <b>mines</b> 52:17 184:9,14 <b>minimum</b> 64:11 <b>mining</b> 16:20 18:17 70:15 71:4,21 74:19 76:12 77:3 77:12,13,20 78:6 79:9,20 80:10,18 81:6 82:2,3,5 85:13 86:19 87:10 88:16 89:19 90:21 93:7,7,9,14,25 95:3,19 107:10 108:16 110:24 112:16 113:13,16 114:1,16,21 119:2,4,16 133:25 145:23 147:4,20 148:8,10,24 149:2,21 150:2,18 152:19,25 154:14 155:15 156:22 157:10,13 157:16,20 158:2,14,17 159:20 163:22 169:13 183:7 184:6 185:15,18,24 191:1 210:10 256:21 257:21 260:1,16 262:23 263:6 264:6 269:9 <b>minus</b> 268:14 <b>minutes</b> 51:4 150:23 151:5 185:14 192:4 234:25 277:20 <b>mischaracterizes</b> 249:15 <b>mischievous</b> 242:25 <b>missed</b> 279:8,17 <b>missing</b> 239:17 240:13,13 <b>Mitchell</b> 205:6 <b>mix</b> 84:11 86:22 87:3,9 89:21 95:22 100:10 106:16 148:14 169:23 170:24 182:25 185:11 186:14,24 187:10,20 189:18,19 190:4 <b>mixed</b> 269:21 <b>mixes</b> 100:9 170:11 173:1,7 <b>mkirsch@gibsondunn.com</b> 3:23 <b>model</b> 38:17,20,22 75:20 76:3 139:4 <b>models</b> 36:25 275:24 <b>modestly</b> 69:3 <b>moment</b> 20:25 107:22 147:8 147:10 198:21 225:13 <b>monetary</b> 249:18 <b>money</b> 248:18 253:23
---	---	--	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

15

**monitor** 10:13  
**month** 208:25  
**months** 47:16  
**Moody** 254:22 255:17  
**morning** 11:18 121:4 134:9  
 134:25 154:11 155:8,10  
 156:6,18 157:20 265:6,6  
 279:19  
**Mort** 41:20  
**motivation** 169:7  
**mouth** 158:11  
**move** 49:7 79:22 96:4  
 122:23 185:17 221:23,24  
 234:5  
**moved** 150:4  
**movement** 52:19 102:10  
**movements** 96:6 249:3  
**moving** 221:3  
**Mozambique** 56:10 223:16  
**multiple** 123:11  
**multitude** 150:3  
**music** 277:15,17  
**mute** 99:19 103:22,24  
 108:25  
**muted** 99:21 103:18  
**MYERS** 4:8

---

**N**

---

**N** 3:1,8 4:1 5:1  
**N-A-I-C-S** 83:14  
**NAICs** 83:13,15  
**name** 11:18 14:6 27:15 48:2  
 77:11 160:25 289:20  
**natural** 96:15 104:23 130:16  
 130:25 131:5,13,18 132:18  
 275:16,18,20 276:2,5,8  
**nature** 132:7 147:21  
**navigate** 165:14  
**NE** 3:5  
**necessarily** 49:10 92:19  
 141:19 150:10 197:4  
 206:10  
**necessary** 212:22  
**necessity** 131:6  
**need** 13:5,20 21:21 25:4  
 30:20 48:9 76:22 89:20  
 106:24 107:19 127:9 135:1  
 138:16 142:9 160:24 184:8  
 184:13 201:19 205:20  
 213:16 223:13 246:24  
 251:23 253:21 258:20  
 262:19 270:9 276:11 285:3  
**needed** 93:11 266:18  
**needle** 221:23,25  
**needn't** 46:21 136:19 182:22  
**needs** 48:3

**negative** 45:10,20 143:20  
 144:5 146:16,19 253:4  
 255:21 267:18,20 268:2  
 269:5 270:6 273:19  
**negatively** 102:5 103:9  
 104:16,18  
**neglected** 100:3  
**negotiations** 209:1  
**neither** 289:15  
**neutral** 143:21 144:5 267:18  
 267:21 268:1 269:5 270:6  
**never** 84:9 86:24 92:20  
 173:4 221:1 254:7 273:7  
**new** 1:2 2:2 3:18,18 4:12,12  
 4:19,19 10:11 16:2 32:12  
 117:23 118:3,12,13 119:18  
 119:22 120:12 121:20  
 159:9 200:11 266:20  
**Newmont** 18:13,16 93:7,9  
 100:20 162:14 164:21,23  
 167:2 190:20 192:2 263:6  
**news** 7:22 28:13 30:18 46:1  
 59:23 61:18 62:2 65:23  
 66:6,24 68:2,11 108:15,18  
 110:2,2 111:17 113:18,25  
 114:19 117:10 118:3  
 119:23 120:5,6 141:15,18  
 141:21 143:20 148:19  
 193:15 194:13,20 196:21  
 197:2,3,6,7 199:11,25  
 200:7,25 201:3,6,12  
 202:13 217:4 223:3 224:7  
 225:2 244:17,21,24,25  
 245:2,3,4,6,10,12,14,24  
 246:15,21 247:4,16 248:10  
 248:15,19,23 249:7,8,23  
 249:24,25 250:1 266:3,5  
 268:16,16 270:5  
**nickel** 185:9  
**night** 157:12  
**ninth** 40:20  
**Nishi** 5:7  
**noise** 99:16 158:12 159:13  
 286:1  
**non-U.S** 77:6  
**nonsensical** 67:3  
**nonspecific** 249:25  
**normally** 29:12 89:16  
**notch** 254:22  
**note** 11:11 59:7 130:13  
**noted** 10:20 23:2 108:15  
 226:10  
**notes** 29:9 67:10 81:2  
 130:10 195:14 197:24  
**notion** 284:3  
**number** 10:6,11 12:17 16:17

25:15 27:23 35:23 37:15  
 39:10,23 43:2 46:10 47:16  
 64:4 75:5 80:2 95:12 98:3  
 99:17 110:4,15 111:24  
 114:11 115:21 117:12  
 118:18 120:19 122:4  
 130:16 131:19 141:22  
 146:20 156:7,18 165:13  
 168:15 170:16 171:19  
 175:24 181:4 182:13  
 183:18 188:7 197:8 198:9  
 208:8 209:21 212:2 218:16  
 221:13 230:18 241:6,13,16  
 241:23 242:15 243:1  
 263:12 265:8 267:6 275:9  
 276:10  
**numbers** 17:21 31:5,5 37:3  
 37:6,12 81:4 209:15  
 213:10 214:13 215:7  
 217:10,14 218:23 229:3,10

---

**O**

---

**o'clock** 109:5  
**oath** 287:11  
**object** 13:20 14:5,12 249:14  
**objecter** 13:22  
**objection** 14:2,2,6 21:16  
 37:25 43:1,17 44:20 51:8  
 52:24 56:20 59:3 63:11  
 68:13 70:4 72:8 73:19  
 74:25 75:12 85:6 87:20  
 89:23 96:9 102:7 118:14  
 119:12 123:23 127:20  
 129:12 137:18 138:4  
 143:23 162:11 169:24  
 178:18 179:7 184:1,17  
 185:21 186:17 193:9,19  
 200:2,19 206:4 207:24  
 210:21 212:21 216:20  
 220:15 224:24 232:22  
 244:2 245:25 246:23 247:5  
 247:17 249:12,15 255:5  
 270:7  
**objections** 13:16,19  
**objects** 13:18  
**observation** 240:8,14  
**observations** 228:24 232:13  
 239:17  
**observe** 149:25 150:16  
**observed** 245:20,21 246:11  
**obtain** 17:10 193:1  
**obtained** 24:6  
**obtaining** 194:16 218:4  
**obtains** 36:25  
**obvious** 90:8,16,25 91:6,12  
 93:2,6,11,21 102:11 260:9

**obviously** 16:5 88:11 92:4  
 98:12 146:19 148:14 171:5  
 173:3 189:6 205:11 206:14  
 209:10 210:5 243:10 252:2  
 265:13  
**occupying** 78:2  
**occur** 66:19 157:15,16  
 232:18 246:20  
**occurred** 227:23 245:22  
**occurring** 112:22 232:10  
 234:3 236:15 246:12,19  
**odd** 230:16 231:4 232:3  
 243:16  
**odd-lot** 232:11  
**OECD** 56:3,6  
**off-take** 197:25  
**offer** 43:15,18 52:3 64:7,17  
 64:24 65:2 68:25 69:9  
 114:2 210:1 211:12 287:10  
**offered** 55:22  
**offering** 208:21 276:4,7  
**offerings** 253:23  
**Oh** 25:23 36:3 142:8 225:17  
 264:8  
**oil** 96:8,12,17,19,22 139:1,6  
 139:9 140:1,6,15,20,25  
 141:9 142:24 144:9,14  
 145:4,7 146:15 147:22  
 148:3,6,9,11,14,18,24  
 149:3,12 182:13,16,20  
 275:20  
**okay** 12:3,12,19 13:4,25  
 25:24 26:10 36:3,6,18,21  
 38:14 39:15,25 40:14  
 47:21 48:11 50:7 54:9  
 56:25 57:25 60:6 61:15  
 63:20 76:7,18 82:10 94:4,6  
 94:10,21 97:19 99:24  
 102:14 103:25 104:1,4,8  
 104:11 105:15,19 107:25  
 108:6 109:1,22 111:20  
 112:13 113:18 114:10  
 117:15,25 118:4,21,24  
 119:21 121:14,16 122:12  
 129:4,9 130:1,12 133:5,19  
 141:7 142:11 144:21 145:3  
 145:6,10 147:13 149:11  
 152:23 153:21 154:23  
 156:21 158:6 166:15  
 167:19 168:21 169:1,12  
 170:15 171:8 172:1 174:19  
 176:12 177:11 179:13,23  
 180:15,22 183:20,21 184:5  
 187:18 188:3,6 189:2  
 194:22 197:18 201:10  
 202:3,7,20 203:1,25 204:7

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

16

209:11 211:8 221:6 226:23 228:4 231:10,13 233:9 235:1 240:12,20 244:13 245:5 250:23 254:4,11 256:6,12 257:18 262:13 263:4 264:15 265:8 267:1 268:15 269:3 270:3 271:5 272:8,23 274:2,7 275:7 276:9 277:5,25 279:10,18 281:7 282:9,13,23 283:9 283:13,18 284:12,23 <b>old</b> 41:18 83:16 <b>omission</b> 29:21 <b>omitted</b> 30:5 <b>once</b> 112:17 114:16 115:1 217:23 <b>one-page</b> 36:4 <b>ones</b> 31:3 35:2 62:6 77:15 77:17 91:10 229:6 244:4,8 266:12 <b>oneself</b> 89:17 <b>onward</b> 61:24 <b>opening</b> 133:17 <b>operate</b> 130:16 <b>operates</b> 130:25 131:19 <b>operation</b> 55:16 56:17 <b>operational</b> 178:9 <b>operations</b> 33:25 79:5 145:18,25 149:4,8,13 170:20 172:15 182:20 194:10 198:6 <b>opined</b> 83:20 <b>opinion</b> 20:22 21:2,13 48:16 48:17,22 49:1,2,13 62:18 66:14 67:4 68:17 77:1 134:12,14 136:23,25 146:14 150:7 155:15 156:1 159:21,23 160:18 168:6 169:23 183:6 187:20 192:20,24 193:2,4 213:7 213:14 220:25 222:15,19 223:7 224:20,22 225:20 247:13,20 250:25 251:9,13 254:5,6 279:21 280:18 283:20 <b>opinions</b> 15:19,23 16:2,3,9 16:10 17:3,15,19 22:12 23:3,10,12 49:20 62:10 133:22,23 137:14 154:12 187:10 225:1 251:5 276:4 <b>opportunity</b> 55:22 <b>opposed</b> 18:7 125:21 126:4 170:2 <b>opposite</b> 103:11 270:17 <b>opt-out</b> 274:11 <b>order</b> 23:16,17 184:17,20	204:4 <b>ordering</b> 33:6 <b>ore</b> 51:25 55:4,15 92:13 98:22 101:10,24 102:6,16 103:7,9 104:15 105:4 106:5,12,17,24 109:16 113:19,21 115:16 116:10 116:15 117:3,7 120:4 122:3,7,18,19 123:8,11,12 123:16,17 124:7,17,22,23 125:3,5,8,14,17,22,24 126:4,15,21 127:1,5,7,14 127:19 128:8,11,14,25 131:15 132:16 141:17 150:7,17 189:9 <b>organized</b> 277:21 <b>original</b> 59:22 134:21 135:10 136:15 167:16 219:25 <b>outcome</b> 34:10,13,23,25 289:18 <b>outlet</b> 197:7 <b>outlier</b> 242:10 <b>outline</b> 282:19 <b>outlined</b> 33:1 265:6 <b>outset</b> 13:17 <b>outside</b> 46:7 56:12 <b>overall</b> 35:16 249:3,18 272:1 <b>overlap</b> 173:6 183:1 184:13 185:13 <b>overlapping</b> 172:20 173:1 <b>overnight</b> 112:15 <b>overpaid</b> 20:13 <b>overpay</b> 204:25 208:7 <b>overwhelming</b> 55:5 <b>owned</b> 172:3 174:10 <b>ownership</b> 39:17 40:25 <b>owns</b> 173:16  <hr/> <b>P</b> <hr/> <b>P</b> 3:1,1 4:1,1 5:1,1 72:25 <b>p.m</b> 2:17 10:2 109:6,7 133:9 133:10 192:12,13 235:6,7 278:3,4 286:7 <b>page</b> 6:3 7:2 8:2 12:23 15:7 15:7,10 28:6,6 39:22,23 40:6,20,21,21 61:16,24 85:21 86:2 103:1,2 107:22 108:19 109:24 115:24 116:19 130:7,8 133:21 143:1,4,7 145:13,14 146:3 146:4,5,6 147:4,6,8,11,14 147:16 149:17,19 150:5,21 165:14,15,23 166:1,3,6,10 176:7,8,16 178:5,6 180:12 180:12,14 181:19,20,24	183:8 188:12,23,24 195:21 195:23 197:22 198:22,23 202:5 208:17,18 209:17,19 209:20 256:8,10,11 276:9 288:3 <b>pages</b> 15:15 61:17 108:1,3 181:17 257:11 <b>paid</b> 20:7,8 152:12 207:10 209:6,23 210:10,18 211:10 231:21 261:5 276:19 277:1 277:5,15 279:14 283:25 <b>Palia</b> 7:14 39:14 <b>pandemic</b> 11:14 <b>paper</b> 7:14 36:8 39:14 41:12 41:17,25 42:12,21 283:16 <b>papers</b> 39:2 <b>paragraph</b> 40:22,23 85:21 85:22,24 86:1,3,17 103:1,4 105:17 106:8 108:19 109:12,19 110:9 113:22 114:7,18,24 116:14 120:14 124:19 130:14,22 131:4 132:3 133:22 178:4,21 180:17 183:16 195:23 197:23 198:25 199:5,10 208:19 209:18,18 210:9 256:10 257:12,13 258:11 258:12 259:21 260:10 <b>paragraphs</b> 87:6 107:23 258:2 <b>PARISE</b> 3:9 <b>parisee@sec.gov</b> 3:12 <b>Park</b> 3:18 <b>part</b> 19:9,20 24:14 46:9 47:9 71:24 80:17 85:17,19 88:11 101:11 104:11 156:13 166:10 167:16 169:21,23 172:25 173:18 173:19 176:10 223:12 233:15 242:14 251:1,24 258:25 270:14 283:5,10 <b>participants</b> 196:16 222:21 222:23 247:8 <b>particular</b> 16:15,19 21:12 30:24 34:23 35:15 51:14 52:9 113:20 123:12,20 131:24 132:22 183:22 185:11 200:21 240:24 241:3 242:4,7,7,19,21 249:20 267:17 269:17 <b>particularly</b> 13:10 57:1 207:20 246:6 <b>particulars</b> 190:17 <b>parties</b> 11:25 12:23 13:16 13:19 <b>partly</b> 75:2,3 137:17	<b>party</b> 13:18 270:4 289:16 <b>passed</b> 265:22 <b>path</b> 127:14 <b>patience</b> 285:6,23 <b>pattern</b> 222:13,14 276:20 282:18 <b>Paul</b> 4:18 205:8 <b>pausing</b> 129:18 <b>pay</b> 154:8 204:3 206:21 207:7 248:16 284:8 <b>pays</b> 204:11 207:9 <b>PDF</b> 15:7,15 39:22 40:21 103:2 108:1 130:8 143:1 145:13 146:4 176:8 181:20 188:12,25 202:6 208:17 256:10 <b>Peabody</b> 18:24 <b>peer</b> 79:18 91:4 98:5,9 183:12 257:15 259:25 260:14 269:12,13 270:15 <b>peer-reviewed</b> 212:18 <b>people</b> 13:9 26:24 27:2 31:7 78:20 203:7,14 204:15 207:1 214:9 269:8 <b>percent</b> 34:19 36:25 37:1,2 38:4,10,11,12 39:6 40:10 40:18 41:1,3,15 42:16,18 43:6,14,15 52:1 64:13,14 72:6,20,25 73:1,6,7 80:8,9 80:12 89:4 101:13 103:5 109:17 119:5 120:24 122:8 124:24 125:2,16,20 126:20 129:5 147:23 180:17,19 198:1 208:23 209:24 210:12,16,18 212:15 214:2 215:3 218:3,5,18,20 220:9 229:2 239:5,11 240:9 244:12 257:24 258:21 <b>percentage</b> 73:11 92:12 113:12 213:8 240:7 <b>percentages</b> 74:22 <b>perfect</b> 90:12 91:16,20 92:20 <b>perfection</b> 173:5 <b>perfectly</b> 84:10 <b>perform</b> 41:1 170:6 243:22 <b>performance</b> 188:15 <b>performed</b> 262:16 <b>performers</b> 277:18 <b>period</b> 59:25 65:24 67:24 102:24 104:22 127:13 132:9 140:14 164:8,25 167:23 168:4 179:10 181:1 208:3 210:17,25 231:19 237:2,3 239:6 252:6 255:21 272:17
--	--	--	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

17

<p><b>periods</b> 164:10 165:19 166:12 180:6 181:25 182:4 182:7,9 202:17,21</p> <p><b>permits</b> 224:13</p> <p><b>person</b> 188:11 197:4</p> <p><b>person's</b> 25:2</p> <p><b>personal</b> 204:5</p> <p><b>personally</b> 173:24 265:25</p> <p><b>perspective</b> 19:13 20:19 21:9,11 22:11 43:4 45:3 49:5 62:16 65:18 66:10,17 78:9 88:8 93:23 135:2,20 136:1,21 137:11 151:7 152:16 153:20 154:2,5 196:18</p> <p><b>PH.D</b> 1:14 2:14 6:5 11:3 287:3 288:2,25</p> <p><b>phenomenon</b> 236:12 237:22</p> <p><b>phone</b> 103:20,23</p> <p><b>phonetic</b> 82:24</p> <p><b>phrase</b> 48:25 244:19</p> <p><b>phrases</b> 269:1</p> <p><b>physical</b> 205:5</p> <p><b>pick</b> 49:23 60:13 162:17</p> <p><b>picked</b> 243:25</p> <p><b>picking</b> 266:21</p> <p><b>picture</b> 150:11</p> <p><b>pictured</b> 186:3</p> <p><b>piece</b> 32:12 220:8 222:2 250:12</p> <p><b>pieces</b> 248:19</p> <p><b>place</b> 99:12 266:11</p> <p><b>placed</b> 57:20</p> <p><b>places</b> 289:11</p> <p><b>plaintiff</b> 1:5 2:5,15 3:3 273:7 273:8</p> <p><b>plaintiff's</b> 142:14 195:13 274:17</p> <p><b>plaintiffs</b> 272:24 273:1,4</p> <p><b>plan</b> 176:15 177:17</p> <p><b>plans</b> 198:3</p> <p><b>platinum</b> 172:4,9,13,14</p> <p><b>play</b> 92:4,6 251:15</p> <p><b>played</b> 224:16 265:12</p> <p><b>players</b> 77:6</p> <p><b>playing</b> 22:5</p> <p><b>plays</b> 170:20</p> <p><b>PLC</b> 1:7 2:7 10:9 113:25 288:3</p> <p><b>please</b> 10:24 13:5 14:5 53:1 94:23 161:14 192:6 196:18 206:5</p> <p><b>pleasure</b> 285:7</p> <p><b>plus</b> 28:3 268:14 280:20</p> <p><b>point</b> 13:4 21:22,23 22:4,7 31:12 37:15 62:14 67:2</p>	<p>69:2 70:19 86:15 109:24 110:20 111:15 114:6 115:18 117:8 132:1 152:9 156:8 165:23 177:9,10 178:22 181:3 191:7 200:21 211:2 212:23 213:25 214:6 214:16,21 215:17 216:14 217:19 218:8,22 219:1,12 219:17 258:10,12 269:1</p> <p><b>pointed</b> 157:24</p> <p><b>points</b> 55:1 73:11 150:24 183:17</p> <p><b>policy</b> 249:18</p> <p><b>portfolio</b> 228:21 229:13 234:9,10,13 238:22,24 242:12</p> <p><b>portion</b> 92:16</p> <p><b>portions</b> 265:21</p> <p><b>posed</b> 127:12 132:8 247:7 248:1</p> <p><b>position</b> 64:11 74:10 252:2 252:9</p> <p><b>position's</b> 66:13</p> <p><b>positive</b> 134:5 143:21 144:5 144:7,14 146:16 150:13 199:12 252:22,25 255:22 257:16,20 267:18,20 268:1 269:4 270:5</p> <p><b>positively</b> 19:24</p> <p><b>possibilities</b> 238:5,6 239:25</p> <p><b>possibility</b> 239:14</p> <p><b>possible</b> 49:19 71:13 78:11 84:9 85:11 86:7,10 87:4 99:18 106:17 107:5 112:10 112:12 173:3,4 183:1 191:22 221:15 231:23 234:7 236:4,7 237:13,19 237:24 238:8 239:19 240:16,18 254:17 269:2</p> <p><b>possibly</b> 28:23 221:20 232:4 281:1</p> <p><b>post</b> 104:25 107:2 224:9</p> <p><b>potential</b> 51:13 52:8 253:19</p> <p><b>potentially</b> 22:25 47:22 108:9 141:17 232:1</p> <p><b>power</b> 260:3</p> <p><b>practical</b> 32:1</p> <p><b>pre</b> 224:9</p> <p><b>pre-Rio</b> 53:16</p> <p><b>preceded</b> 83:16</p> <p><b>precious</b> 112:16,19,25 113:4,7,11,14 115:3,10 141:16</p> <p><b>precise</b> 182:25 224:18</p> <p><b>predate</b> 62:20</p> <p><b>predict</b> 270:16</p>	<p><b>predicting</b> 193:16</p> <p><b>predictive</b> 260:3</p> <p><b>predicts</b> 270:17</p> <p><b>preexisting</b> 280:2</p> <p><b>prefer</b> 155:12</p> <p><b>premium</b> 203:2,5,8,12,15,18 204:2 206:17 207:2,9,10 207:20 208:23 209:6,13,23 210:10,16,18,19 211:9,21 249:17 279:23 280:7,20 283:24 284:10</p> <p><b>preparation</b> 27:19 28:3</p> <p><b>prepared</b> 268:8,11</p> <p><b>preparing</b> 15:18 27:25 57:18 64:17 75:10,23 129:1 131:12 141:14 171:10 181:13 196:22 200:14 243:21 265:10</p> <p><b>presence</b> 51:23 91:23 98:18 132:18 237:8</p> <p><b>present</b> 5:3 12:5 78:5 96:21 144:9 211:16 223:18 233:19,22,24 248:7</p> <p><b>presented</b> 24:3</p> <p><b>presents</b> 212:15</p> <p><b>preserves</b> 13:19</p> <p><b>presume</b> 117:23</p> <p><b>pretty</b> 21:19 43:23 156:8 205:10 206:12 215:1,5</p> <p><b>previous</b> 149:15</p> <p><b>previously</b> 9:3 14:22,25 130:2 133:13 165:10 195:9 237:7</p> <p><b>price</b> 19:17 20:8,10 22:1 28:19 29:24 30:3 45:11 46:18 47:15 49:6 50:6 62:24 66:21 69:3,16 74:19 102:15,17 103:8,11 104:15 106:5 108:10 109:14 112:22 122:7,19 123:4,7 123:20 124:22 125:6,8,10 125:21,22,25,25 126:5 127:1,5,5,17,24 128:13,14 129:6 131:14 132:10 134:6 134:20 136:11 138:6,11,13 138:18 139:6,9 140:7,15 140:19 143:18 144:1 151:11,14,16 152:12,14 153:7,13,23 154:8 200:5 204:11 206:22 207:8 208:24 209:25 218:20 221:2,10,18 223:6 224:8 225:3 230:22 236:16 239:16,20 251:6 256:15 258:4 259:8 261:6,11,18 261:24 262:3,8,9 268:5,18</p>	<p>277:16 279:21 280:2,10,22 283:21 284:8,22</p> <p><b>priced</b> 126:15</p> <p><b>prices</b> 25:10 28:20 45:7 53:7 75:24 99:8 102:6 103:11 103:14 104:17,19 105:3,4 105:6,12 106:4,12,25 107:6,12,16 108:14,16,22 109:16,25 110:11,24 111:1 111:4,6,6,8,8,13,13 112:17 113:19 114:16,25 115:1,10 115:16 116:2,7,11,16 117:3,7 120:5 122:3,4,12 122:14 123:11,16 124:7,17 124:23 125:18 126:4,22 127:8 128:4,11,15 130:23 131:21 132:5,16 139:1,10 140:1,7,15,25 141:9,16 142:4,20 143:2,5,13 144:5 144:8,9,14 146:15 147:16 147:22,22 148:3,6,9,10,18 149:22 150:4,17 151:24 152:5 232:2,9 235:24 236:14 237:10,16,20 250:12 261:8,8 264:21 275:22</p> <p><b>PricewaterhouseCoopers</b> 8:19 146:25</p> <p><b>pricing</b> 125:4 237:18 241:20</p> <p><b>primarily</b> 55:15 92:18 194:7</p> <p><b>primary</b> 13:22 81:6,17,22</p> <p><b>prime</b> 81:21 277:17</p> <p><b>principal</b> 161:1 265:24</p> <p><b>principally</b> 82:5,7 85:12 113:11</p> <p><b>principled</b> 161:9 162:20</p> <p><b>principles</b> 29:6 228:5</p> <p><b>print</b> 283:16</p> <p><b>prior</b> 9:4 54:10 62:12,22 64:24 65:12 66:3 67:12 68:16 117:8 192:22,25 193:15 200:17 225:15 252:14 289:6</p> <p><b>private</b> 203:21 204:1,4</p> <p><b>privately</b> 83:3</p> <p><b>probabilities</b> 212:10,11 215:7</p> <p><b>probability</b> 212:19 213:1,8 213:14,18,21 215:3 218:4 218:11</p> <p><b>probably</b> 28:16 51:25 54:22 71:12 185:1 205:10 217:11 218:25 254:24 274:17 276:24 279:19</p> <p><b>problem</b> 90:15 211:24 240:5 242:11 258:25</p>
--	--	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

18

<p><b>problematic</b> 89:14  <b>problems</b> 21:5 96:21  <b>proceed</b> 13:14  <b>proceedings</b> 289:7,10,17  <b>process</b> 62:25 63:15 64:5  <b>produce</b> 71:12 258:20  <b>produced</b> 29:3 71:1,19,25  72:4 74:9 105:20 140:10  201:11 227:6  <b>producer</b> 174:4  <b>producers</b> 148:25  <b>produces</b> 213:25  <b>producing</b> 83:21 258:6  <b>product</b> 84:3,11 86:7 87:3,9  87:12,24 95:21,22 106:16  169:23 170:11,24 172:21  173:1,7 175:8 182:25  184:13,14 185:11 186:14  186:24 187:10,20 189:18  189:19 190:4  <b>production</b> 71:8 88:1 98:2  99:11 103:7 278:12  <b>products</b> 83:22,23 84:17  85:2,11 86:9 87:2,7,11,16  87:25 88:6 89:13,21 91:21  95:13 97:13,21 98:17,24  99:5 100:2 122:15 145:7  150:3 170:8 185:6 203:10  <b>profit</b> 32:12  <b>profits</b> 99:9 103:13  <b>program</b> 164:11 165:18  166:8,12 176:14 181:21  252:18,21,24  <b>progression</b> 283:4  <b>project</b> 27:10 51:14 52:9,13  52:14,22 53:4,13 55:24  70:14 224:1 281:20  <b>projects</b> 52:6 53:23 54:1,13  56:2 277:16  <b>promising</b> 52:13  <b>proper</b> 91:25 106:11,22  154:15  <b>properly</b> 262:14  <b>properties</b> 56:19  <b>proportion</b> 180:18  <b>propose</b> 163:8  <b>proposition</b> 117:2  <b>prospects</b> 46:17 47:19  48:18 51:13 52:8  <b>protect</b> 130:17 131:19  <b>protection</b> 131:1  <b>provide</b> 46:25 47:14,23 48:1  63:9 207:11  <b>provided</b> 11:24 35:19 57:2  63:20 64:6 75:20 77:9 83:3  210:3 242:22 260:21</p>	<p><b>providers</b> 50:10  <b>provides</b> 83:5 130:25  <b>providing</b> 47:22  <b>pry</b> 158:21  <b>public</b> 47:8 54:22 197:4  <b>publication</b> 118:1,2,11,12  120:25 121:3,12,15 197:20  <b>publicly</b> 209:23  <b>publish</b> 50:14,17  <b>published</b> 39:3 117:22  119:19,21 121:10 205:25  <b>publishes</b> 109:14 124:21  <b>publishing</b> 50:11 267:14  <b>pull</b> 35:21 110:7 114:14  117:15 130:5 141:25 165:7  198:21 202:1,5 240:21  256:4 267:2,10  <b>pulled</b> 15:4  <b>pulling</b> 39:13 120:22  <b>pure</b> 92:4,6  <b>purported</b> 185:14,25  <b>purpose</b> 35:11 47:10 54:8  78:1 84:24 89:25 90:1  155:6 174:24 175:2 177:8  177:17 202:23,25 217:9  219:1  <b>purposes</b> 75:9 76:19 85:1  96:23 97:2 106:10 121:18  168:7 175:15 191:17 204:5  211:16 216:17 232:8 252:7  <b>pursued</b> 114:21  <b>push</b> 142:9,10  <b>put</b> 11:9 14:18 25:21 61:13  63:24 67:18 69:8 79:25  101:22 102:25 133:16  149:16 158:10 163:14  165:15 212:5 256:8 271:13  275:12 278:8,14  <b>puts</b> 81:22  <b>putting</b> 50:13 62:9 225:6  <b>PwC</b> 147:19 149:19,25  150:11,16,19  <b>PwC's</b> 148:3</p> <hr/> <p style="text-align: center;"><b>Q</b></p> <hr/> <p><b>qualify</b> 89:6  <b>qualitative</b> 50:18 171:5  179:9 187:6,25 190:8,9  268:13,22 270:1  <b>quantifiable</b> 50:19  <b>quantitative</b> 47:15 50:3 51:2  223:5 251:15 254:12 268:4  268:19 270:10  <b>quantitatively</b> 240:17  <b>quantity</b> 230:3  <b>quarterly</b> 126:16</p>	<p><b>question</b> 14:11 15:21 17:7,7  17:14 19:8,11,14,21,23  20:1,15 22:9,10 24:19  29:15,18 30:9,11,22 36:11  39:4,9 43:10,22,25 44:2,22  44:24 45:4,24 49:4,8,21  53:15,15,18,19,24 54:24  55:18 57:5,17 58:22,23  59:11,13,21 62:13,23 63:2  63:8,9,12 65:1,4,13,15,17  65:22 66:9,17 67:1,20  68:21 70:6,19 72:2,10 73:4  73:4,21 75:22 76:6,7 84:2  89:16 90:5,10 91:19 92:5  95:20 96:10 97:18 104:5  106:21 107:1 113:8 118:17  119:25 121:18 125:23  127:13 128:1,6,23 132:8  134:15,17,23 135:7,14  136:5,12,12 139:11,18  140:18 147:11 153:9 154:6  159:24 160:13,21 161:11  164:1 165:25 167:14,18  172:24 173:19,20 181:3  182:25 183:3 184:16,22  187:2 193:11 194:18  196:25 200:9,12 201:19  203:7 204:14 207:14 211:5  211:25 216:10 217:1,3  220:18,18,20,21,23 228:22  232:5,5,14,24 233:1  236:23 239:9 244:6,25  246:17 247:7,19,25 250:15  251:21 254:3 255:14 256:1  256:18 258:1 259:13 265:7  266:15 268:25 269:10,14  270:9 271:11 280:15 281:5  284:1,11  <b>questioned</b> 186:1  <b>questioning</b> 13:5 60:10  129:22 158:20 232:7  <b>questions</b> 13:13 15:5 29:6  52:17 60:23 64:3 91:17  139:15 152:25 180:11  186:8 192:18 196:13 199:6  201:2 219:15 221:14  235:12 238:15,17 239:1  240:25 245:16 272:9  277:21 278:8,22 281:8  284:24 285:2,9,12,16  <b>quick</b> 140:4  <b>quicker</b> 211:15  <b>quiet</b> 159:9  <b>quite</b> 46:10 54:19 57:23  63:23 127:21 167:18  247:10</p>	<p><b>quotation</b> 111:19  <b>quote</b> 44:23 108:18 122:9  138:5  <b>quoted</b> 110:10</p> <hr/> <p style="text-align: center;"><b>R</b></p> <hr/> <p><b>R</b> 3:1 4:1,22 5:1 154:1 251:6  <b>raise</b> 99:5  <b>raised</b> 16:19 18:5 55:1  105:24 253:22  <b>rally</b> 112:15  <b>ran</b> 74:18 75:10 167:1,5  201:10 256:19,20 263:11  264:2  <b>Randgold</b> 115:12  <b>random</b> 242:14  <b>range</b> 209:24 210:6 211:3  213:15 227:24 270:12  <b>rank</b> 33:6  <b>ranked</b> 115:25  <b>rare</b> 184:10  <b>rated</b> 253:13  <b>rates</b> 224:9 249:2,4,17  <b>rating</b> 226:21 250:24 251:4  251:7,9,10,16,19,22 252:7  252:11 253:16,21 254:7,13  254:13,15,18,23 255:1  <b>ratings</b> 252:3 254:8 255:18  <b>ratio</b> 31:16  <b>raw</b> 28:24 103:6  <b>reach</b> 20:22 100:24 101:2  193:4 200:14 250:10  260:19  <b>reached</b> 15:20 41:13 187:10  190:3 260:13  <b>react</b> 244:23  <b>reaction</b> 19:14 30:8 66:21  133:24 267:17 270:6 271:7  271:20  <b>reactions</b> 7:7 269:5 270:13  <b>read</b> 26:16 37:3,6,15 41:9  103:15,16 104:6 114:4  115:4 119:6 129:14,15  131:2,10 134:7 146:12  147:25 157:17,18 171:24  187:6 196:11 199:4 209:3  271:22,24 272:7 287:3,5  <b>readers</b> 271:14  <b>reading</b> 28:2 104:9 178:21  197:23 225:5 272:2 283:8  <b>reads</b> 119:1  <b>ready</b> 120:3  <b>real</b> 52:21 197:6 251:18  <b>realized</b> 215:25  <b>really</b> 23:3 27:1,6,23 35:10  50:20 54:3 66:22 69:4,7</p>
---	--	--	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

19

81:23 86:4 89:2 93:3 98:9 101:17 102:22 117:10 123:6 124:5 128:1 135:15 138:18 144:8 157:8 160:1 162:13 173:10 174:2 178:20 180:25 189:22 191:2 195:5 205:19 209:15 214:4 215:7 225:2,11 242:18 248:19 258:1,10,18 261:5 269:16 282:7 <b>reason</b> 11:11 14:4 21:10,12 161:2,9 163:24 167:12,20 167:25 169:16 206:21 210:2 211:23 259:20 288:4 288:6,7,9,10,12,13,15,16 288:18,19,21,22 <b>reasonable</b> 151:10 152:10 153:18 154:6 155:25 157:2 157:22,23 158:2 216:15 259:15,17 260:25 261:3,9 261:11,14 262:6 <b>reasons</b> 43:3,11 84:6 98:3 106:7 163:12 <b>rebar</b> 120:24 122:13 <b>rebuttal</b> 16:6 21:6,14 63:6 63:10 165:8 263:1 <b>recall</b> 12:6 27:23 28:17 31:14 34:1,24 35:3 54:15 57:22,24,25 58:7,8,9 69:7 70:17 71:5,23 81:20,23,25 83:12 89:3 95:4 96:1,7 101:17,18,19 102:19 105:14,18 106:1,6 107:13 108:22 113:15,17 117:10 117:11 123:6,9,22,25 124:5,18 125:12 126:17 128:12 140:2,8 145:9 149:1,5,6,9,11,15 151:4 165:1,2,3,4,5 166:9,18,20 168:17 170:13,18,23 171:7 171:25 172:6,10,22 174:2 174:6,7,14,18 178:3 180:25 184:5 188:1 189:22 189:24 190:15,16 191:2,14 192:1 194:19 197:1 200:7 200:20,23 201:18 209:15 225:11,22,24 227:1,9 229:20 231:10,12,17 237:1 237:5 240:10 242:18 254:25 255:19,25 257:3 263:24 264:14,18 265:1 272:21 274:10 282:21 283:2 <b>recalling</b> 190:17 <b>receive</b> 12:12 <b>received</b> 262:25 265:14	270:20 <b>recess</b> 60:17,18 94:13,14 109:6,7 133:9,10 192:12 192:13 235:6,7 278:3,4 <b>recognize</b> 15:2 36:12 <b>recollection</b> 41:17,19 60:3 69:11 75:15 83:16 88:2,3 93:19 95:7,8 112:20 174:8 255:7,9 <b>recommendation</b> 48:21 <b>recommendations</b> 46:18 47:11,14,22 282:14 <b>recommended</b> 119:2 <b>record</b> 10:21 11:9 26:15 48:10 60:14,16,20 63:3 94:7,8,12,16 109:2,5,9 129:23 133:3,7,12 156:14 183:15 192:9,11,15 234:24 235:5,9 242:13 257:9 277:20,24 278:2,6,9 285:21 286:5 <b>recorded</b> 10:18 117:9 122:5 <b>records</b> 241:21 <b>reduce</b> 131:5 <b>reduced</b> 146:10 <b>reduction</b> 252:17,20 <b>reevaluating</b> 247:8 <b>refer</b> 12:18 76:18 79:15 83:18 112:7 113:19 116:23 138:5 139:17 178:13 203:7 209:8 262:19 <b>reference</b> 101:9 114:18 116:3 <b>referral</b> 9:4 14:23 130:3 133:14 165:11 195:10 <b>referred</b> 17:4 28:11 44:6 49:14 50:11 51:17 52:7 77:11 113:1 115:7 122:13 122:19 123:4 158:4 206:17 221:16 262:21 <b>referring</b> 14:20 17:14 32:22 63:14,15 68:20 74:4 80:5 85:18 90:19 116:21 122:6 122:22 139:16,19,20 158:3 175:11 239:4 242:23 280:10 <b>refers</b> 97:10 114:15 115:19 121:7,22 <b>refining</b> 88:16,17 <b>reflect</b> 217:18 <b>reflected</b> 134:5 190:10 <b>refresh</b> 190:1 <b>refuge</b> 115:3 <b>regard</b> 19:1 <b>regarding</b> 194:25 <b>regime</b> 56:18 58:3,5	<b>regist</b> 82:24 <b>regression</b> 29:14 73:14 74:6 74:7,17 75:11 256:19 264:22,23 283:9,13 <b>regressions</b> 264:2,5,20 265:2 <b>regulation</b> 56:22 <b>rehabilitate</b> 159:23 <b>reject</b> 37:13 41:25 <b>relate</b> 90:5 <b>related</b> 11:22 58:20 62:11 68:11 78:7 99:2 136:17 141:15 147:23 183:12 223:15 224:12 226:7 227:2 237:9 250:24 262:22 278:17 289:16 <b>relating</b> 277:14 <b>relationship</b> 130:23 139:25 140:6,14,25 275:22 <b>relationships</b> 141:9 276:10 <b>relative</b> 101:15,20 207:20 236:9,15 260:3 <b>relatively</b> 170:2 234:4 239:3 246:19 <b>released</b> 108:8 198:13 <b>relevance</b> 20:21,24 135:5,6 137:22 <b>relevant</b> 19:25 65:13,17,19 123:21 126:19 127:1 128:15 129:4 132:19 135:23 136:7,25 137:8 155:22 174:17,19,23 175:3 175:16 220:13 221:1,9 226:2 245:11,13 <b>relied</b> 109:18 124:25 125:17 125:21 228:2 <b>relies</b> 125:24 129:6 <b>rely</b> 120:6 124:8 125:3 126:21 132:15 <b>relying</b> 124:15 271:8,9,22 276:7 <b>remaining</b> 61:23,24 277:21 <b>remember</b> 28:12 31:17 69:2 69:4,21,25 82:8 89:10 97:9 107:18 117:24 211:13 218:19 224:13 229:3,10 248:17 264:9,15 <b>remembering</b> 18:24 <b>remind</b> 148:17 <b>reminded</b> 181:16 <b>reminder</b> 162:7 <b>remote</b> 13:8 <b>remotely</b> 289:10 <b>removal</b> 162:7,12 <b>remove</b> 162:6 <b>removed</b> 64:10 161:5	162:14 164:22 263:6 <b>remuneration</b> 188:13 <b>render</b> 48:16 76:25 168:6 <b>rent</b> 57:20 <b>REO</b> 42:23 <b>repay</b> 253:14 <b>repeat</b> 59:13 <b>rephrase</b> 255:14 <b>rephrasing</b> 136:5 <b>replicate</b> 160:6 <b>report</b> 7:9,11,13 8:4,5,7,9 15:3,8,11,18,19,22,24 16:6 16:7,21 19:9,20 21:3,4,15 21:19 22:13 24:3 25:22 26:2,20 27:17,20 28:2 29:3 31:17 34:11 36:2,13,19,22 42:7 47:18 51:6,10 53:10 54:4 55:9 57:18 58:18 61:3 61:7 64:18 67:7 69:17 70:1 71:2 75:10,23 77:10 79:7 79:13 81:24 85:8,17,20 87:13 88:2 89:5 97:5 101:4 101:18,23 102:25 103:2 105:21 107:19,24 110:21 113:18,20,24 114:7 115:14 116:13,24,24 117:16,19 118:22 119:15,19,23 120:7 120:15 121:19 122:2,5 124:2,4,19 129:1 130:7,9 131:13 132:12,14,19 133:17,21 140:11,17 141:14 145:12,14 146:4,24 147:7,15 151:3 158:17 164:9 165:8,9,15 171:2,4,9 171:11,19 176:5,9,11 178:6 179:21 181:8,13,14 181:18,20 183:16 185:2 187:8,13,18 188:5,13,25 189:23 190:5,11 194:21,23 194:24 196:15 197:17 198:13,17,18 200:14 201:23 202:4 208:12,15,18 209:9 211:13,25 212:6 213:12 219:24 223:15 224:11 226:2,10 227:7 234:12 250:23 254:10,25 256:4,11 262:17,18 263:1 264:5 265:3,10,12,13,15 265:17,21 266:2 267:21 271:10,21,22,24 272:4,5,6 272:20 275:14 281:10 282:6,15 283:10 <b>reported</b> 1:23 51:10 66:6 109:15 115:11 116:15 120:5,11 123:1 124:22 <b>reporter</b> 10:22,24 14:8
--	---	--	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

20

289:1,5 <b>reporters</b> 50:24 <b>reporting</b> 10:17,23 115:9 119:9 282:10 <b>reports</b> 17:5 46:1,10 47:10 61:18 68:2,3 85:15 100:24 108:15 142:4 156:23 157:11,17,18 158:14 166:5 171:10,14 174:3 200:25 222:24 223:3 269:24 <b>represent</b> 121:14 214:17 216:7 217:14,22 262:10 279:22 <b>representation</b> 95:24 125:16 <b>representative</b> 48:23 <b>represented</b> 56:10 87:8,16 95:15 96:13,13,22 97:3 100:5,5 101:1 208:23 220:2 269:1 <b>representing</b> 10:16,23 172:2 <b>represents</b> 280:2,19 283:22 <b>request</b> 278:12,15 <b>require</b> 25:9 136:14 258:5 259:9 <b>required</b> 276:22 <b>requirement</b> 82:10,15,17,21 82:23 <b>requirements</b> 56:23 <b>requires</b> 138:20,23 198:5 280:5 <b>requisite</b> 24:24 <b>research</b> 49:15,15 53:10 145:22 <b>researcher</b> 33:6 98:13 <b>reserve</b> 278:16 285:2 <b>reserves</b> 172:4,14 <b>resource</b> 275:16,18 276:5 <b>resources</b> 53:12,16,22 57:19 165:2 166:11 168:6 188:20 276:3,8 284:21 <b>respect</b> 12:1 17:3,15 18:3 45:6 59:1,19 66:3 89:7 109:24 137:14 138:10 139:24 140:5,13 148:6 156:10 226:24 227:5 228:6 228:23 251:8 256:2 267:3 270:22 278:18 <b>respective</b> 11:23 <b>respond</b> 63:10 <b>responded</b> 19:24 <b>responding</b> 21:14 66:8 75:16 <b>response</b> 30:18 41:20 63:21 105:23 162:13 168:11	<b>responsive</b> 167:15 <b>rest</b> 66:13 260:10 <b>restating</b> 48:20 <b>result</b> 18:15 41:7 44:19 74:22 200:6 201:4 212:11 237:10 250:8,9 251:2 258:23 259:10 <b>results</b> 16:25 41:14 42:22 43:13 72:4 259:4 260:14 263:23 264:1 <b>retrieve</b> 194:20 <b>return</b> 19:3 42:24 134:6 173:13 178:2,14 179:3 180:16 220:9,9 226:12,13 238:10 239:22 240:3 245:23 256:20,25 257:16 257:20 260:1,15,20 283:18 <b>Returning</b> 91:21 <b>returns</b> 34:17,18 37:1,18,19 39:18 70:13 71:3,21 74:21 102:16,17 108:11 140:15 140:25 178:15 232:9,13,21 234:5 238:1 239:17 246:14 246:14,22 258:7,13,15,21 <b>revealing</b> 221:12 <b>revenue</b> 52:2 55:18 <b>revenues</b> 103:13 <b>review</b> 8:10 26:12 36:18,21 46:9 144:12 147:4 197:13 197:19,24 <b>reviewed</b> 62:9 69:19 98:6,9 171:10,14 173:23 181:13 222:21 268:9 269:12,13 270:15 271:3 <b>reviews</b> 33:25 224:7 <b>RIFKIND</b> 4:18 <b>right</b> 12:16 19:16 20:8 34:9 34:19 36:7 38:17,23 39:3 40:6,11,18 42:12,15 45:15 46:11 47:12,24 48:3,19,24 49:3 50:13 52:15,22 55:6 55:11,16,19,23 56:3,13,19 58:11,16 63:10,22 64:14 64:18 71:18 75:11 80:10 80:21,25 83:18 93:7,10,15 93:18,25 94:25 101:12 104:12,19,20 109:3 111:1 115:13 116:16,25 120:9 121:1,4 122:20,25 123:2 129:1,6 133:6 137:9 141:12 142:24 143:10,14 147:11,16 150:9 151:5 153:23 154:4,17 159:17 160:19 163:8 164:12 167:3 168:23 171:11,16 173:2 176:21 177:2,13,14,20	179:6,17,25 180:3,7 181:14 182:4,7,10,14 186:16 188:17 189:7,10,15 190:14,19,23 194:4 195:2 198:18 199:2,14 201:2,13 201:17 203:2 210:6 211:22 219:12 220:11 221:4 223:16 226:3,8,14,15 231:21,25,25 232:3 233:7 233:20 234:20 236:3,6,10 237:12,18,23 238:3,5,13 239:6,12,18,22 240:3,15 242:8 243:8,11,17 244:1 245:10,15 246:8 252:18,25 254:8,16,19 255:3 256:22 257:1,24 261:15 262:3 263:7,12,21 267:18 277:9 278:16 279:2 282:11 <b>right-hand</b> 146:5 <b>Rio</b> 1:7,7 2:7,7 3:16 8:12,13 8:15,18 10:8 22:22 23:6,17 23:21 45:8,10 51:7,24 53:22 54:2,10,13 55:5,9,15 56:2,17 57:3 58:1,10,14 62:11,21 63:6,21 64:7,10 64:16,24 67:5,15 68:1,11 68:25 69:8,15 70:13 76:25 77:4,8,22,24 78:2,7,13 79:5 84:17,19 85:2,3 86:17 87:18 88:6 91:22 92:1,3,11 92:12,16 95:6,16,18 96:1 96:14,23 97:13,14,18,20 97:22 98:20,22 100:6,12 100:14,19,23 101:11,15,21 103:13 105:7,11 106:10,18 106:23 108:10,11 109:17 113:4,25 114:20 116:4,6 119:3 123:21 124:24 125:2 125:7,10,16 126:2,14,20 127:1,10,18 128:13,15,24 130:6 131:13,17,18,21 132:5,15 133:24 134:4 135:9 137:16 138:1,5,11 138:13 139:2,2,9,25 140:7 143:21 145:4,7,11,17,24 146:8,16 150:8 151:1 154:16 155:4,9 156:23,25 157:10 158:13 159:16 161:7 162:1,25 163:16,20 164:11 167:22 168:7,22 169:5,8,17 170:8,21 171:22 172:8,15 174:4,13 175:13,22 177:1,17,24 178:17 179:5,16,24 180:5 180:24 181:1 182:3,19,20 183:24,25 184:9,14 185:7	185:19 186:24 187:11,21 188:17 189:7,20 191:5,17 191:22 192:19,21,25 193:6 193:16,24 194:14 195:1,16 198:24 199:1,11,18,23 200:16 208:20 209:2,6 210:17,18 211:9 212:19 213:19,21 214:18,24 216:7 219:20 224:21 225:9,20 226:7 227:17 228:10 231:5 231:16,19 233:7 234:3 236:25 238:18 241:3,12 242:16 243:7 246:5 250:11 250:24,25 251:3,10,21,25 252:8,15 253:20,21 254:22 276:12,15 277:4,6 279:4 284:6 285:8 288:3 <b>Rio's</b> 118:24 157:17,18 <b>rise</b> 114:16 <b>rising</b> 102:6 109:25 110:12 116:4,7 212:14 <b>risk</b> 130:13 223:15 249:19 <b>risks</b> 145:16,17 223:10,20 224:1 <b>River</b> 225:10,21 <b>Riversdale</b> 19:25 24:10,16 51:4,7 53:12,15,21 54:11 54:16 55:21 58:10,14,24 59:17 61:4 62:11,22 63:7 63:22 66:3 68:12 114:1,21 116:5 118:24 119:2 133:25 192:19 193:1,6,24 194:7 197:25 199:2,18,24 208:21 209:7 211:10 214:18 216:7 216:19 217:2,15 220:4 222:16 223:10 255:2,12,16 266:6 279:23 280:19,24 281:1 283:23 284:18 <b>Riversdale's</b> 208:24 <b>Robert</b> 1:8 2:8 4:17 5:4 208:13 <b>rod</b> 122:14 <b>role</b> 170:19 224:15 251:14 265:11 <b>rose</b> 111:1 112:17 115:1 116:2 122:3 <b>roughly</b> 84:14 231:10 <b>round</b> 229:23,25 230:10,15 230:18,20 231:3,14,20 232:2 237:15,17 <b>rounding</b> 93:4 <b>royalties</b> 277:14,17 <b>RPR</b> 1:24 2:19 289:23 <b>RSA</b> 1:24 2:19 289:24 <b>RTCM</b> 138:1 151:1 <b>RTE</b> 52:5
---	--	--	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

21

<b>RTM</b> 251:1 268:16 <b>rule</b> 96:17 <b>rules</b> 11:22 <b>run</b> 18:19 29:14 166:15 204:6 264:5 283:4,5,14 <b>run-up</b> 67:12 283:16 <b>running</b> 73:18 152:19 263:5	142:6 165:16 181:10 202:2 256:9 257:12 <b>screenshot</b> 8:12,13,14,17 8:21 142:1,15 240:22 241:2 <b>scroll</b> 61:23 <b>scrolling</b> 15:10 <b>search</b> 62:7 124:4 201:5,16 202:13,16,16 266:21 <b>searches</b> 201:7,10 202:21 <b>searching</b> 266:25 <b>SEC</b> 12:13 136:8 288:3 <b>second</b> 43:5 65:5 99:15 110:9 122:6 130:14,15,22 133:21 180:17 183:16 195:21 219:12 252:16 <b>seconds</b> 48:9 <b>section</b> 87:14 103:16 124:4 145:15 146:6 176:11,13 188:13 250:24 279:6 <b>sector</b> 35:15,16 54:22 108:16 112:16 114:16 176:22 180:19 210:10 249:19 <b>secure</b> 196:4,23 198:4 <b>securities</b> 1:4 2:4 3:4 10:8 11:20 151:9,14 154:4 238:22 239:3 244:23 248:6 253:12 261:2,5,8 262:4 273:6 <b>security</b> 28:19 29:24 30:3,13 30:25 151:12,15 232:6 241:12 243:13 246:19 <b>see</b> 12:23 15:14 21:21 23:7 23:17,17 25:2 36:7 37:18 39:19 40:1 41:5 42:9 50:9 55:14 70:22 79:11,19 85:15 86:5 108:20 110:8 110:13 114:17,22 118:7,7 121:8 130:19 135:1,15 142:3,5,6 143:2,5,7 145:1 145:4,20 147:1,17 149:23 149:24 150:5 157:5 158:21 161:8,11 166:10,13 168:3 176:4,6,13,23 177:2,22 178:10 180:21 181:10,23 182:1,3,12 183:10 185:2 194:13 196:7 197:14 198:7 198:15 199:14,20,21 200:4 210:13,14 232:24 236:9 238:20 241:1 242:3,5 243:9 257:21 260:4,7 264:8 267:11,13,15 271:14 271:25 272:1,19 <b>seeing</b> 71:23 209:14 <b>seek</b> 115:2 278:16	<b>seeking</b> 194:25 <b>seen</b> 105:25 124:3 195:17 196:10 198:1 208:15 211:24 274:20 <b>sees</b> 75:18 <b>segments</b> 97:16 <b>Select</b> 76:12 <b>selecting</b> 82:11 244:14 <b>sell</b> 47:11 125:10 148:11,14 153:7,13 198:3 <b>seller</b> 198:1 <b>selling</b> 83:11 127:19 153:15 172:8 <b>sells</b> 88:6 145:4 <b>semi-strong</b> 30:20 <b>sense</b> 49:6 51:6 58:25 59:19 106:17 126:23,25 129:7,10 129:24 186:9 218:24 235:24 280:6,9 284:9 <b>sensitivities</b> 18:19 263:18 <b>sensitivity</b> 16:10,23 34:6 164:14,16 166:15 167:1,5 168:25 262:22 263:5,11,19 <b>sentence</b> 104:14 110:22 112:13 122:7 124:20 127:6 130:15,22 131:4 145:17 146:8 183:17 199:17 210:8 <b>sentiment</b> 48:18 58:19 59:1 59:19 60:1 <b>sentiments</b> 58:1 <b>separate</b> 83:11 281:3 <b>SEPARATELY</b> 9:13 <b>serve</b> 189:20 <b>service</b> 50:10 <b>services</b> 50:22 279:14 <b>set</b> 155:9 238:4 261:18,24 289:11 <b>sets</b> 261:11 <b>setting</b> 277:16 <b>seven</b> 18:12 <b>shadow</b> 167:8 <b>Shanghai</b> 120:24 122:13 <b>share</b> 50:8 138:6,10,12,18 208:22 223:6 225:4 280:22 283:21 <b>shareholder</b> 178:2,8,14 179:3 180:16 214:25 273:15,21,24,25 274:4 <b>shareholders</b> 119:2 193:24 196:3 199:20 273:13,14,22 274:3,5,8,9,19,23 275:5 <b>shares</b> 194:16 196:6 199:25 200:17 208:25 209:25 219:21 230:4 <b>sharply</b> 116:2 <b>sheet</b> 23:25 287:9 288:1	<b>Shell</b> 182:17 <b>shift</b> 250:6 <b>Shines</b> 273:6 <b>shock</b> 96:4 102:9 112:22 <b>shocking</b> 159:12 <b>shocks</b> 96:16 98:2 99:1,3,7 99:12 104:21,22,24 107:3 122:22 <b>short</b> 31:16 60:13 94:9 120:24 234:24 273:11 <b>shorthand</b> 289:4,12 <b>show</b> 61:11 118:22 165:9 176:2 183:14 185:1,14,25 188:4 195:12 208:11 209:22 240:23 257:14 <b>showed</b> 42:21 145:22 186:2 <b>showing</b> 145:10 215:18 <b>shows</b> 165:17 241:2,11 243:5 <b>sic</b> 81:8,9,10,17,22 82:9,12 82:15,18 83:7,16 85:14,25 97:1,2,7,13,16,19,21 98:6 267:10 <b>side</b> 146:5 <b>sidewalk</b> 152:20 <b>signalled</b> 128:2 <b>signalling</b> 221:21 <b>signature</b> 15:8 286:6 288:24 <b>Signed</b> 287:16 <b>significance</b> 37:23 38:10 41:10,15,21 42:1 44:1,16 64:22 73:7 75:19 101:15 101:20 238:13 259:12 <b>significant</b> 19:3 22:1 39:8 40:9,18 41:3 42:4,16 43:14 44:2 47:9 66:1 67:12 68:10 68:15 69:25 72:12,17,19 73:1 96:22 100:14 101:11 134:5 149:12 151:16 182:20 226:11 236:14 256:15,25 257:17,19,23 258:4,6,13,21,23 259:8 260:1,15,18 <b>significantly</b> 131:5 250:17 <b>silliness</b> 213:17 <b>silly</b> 21:1 213:4,5 215:8,13 215:25 218:1 <b>silver</b> 86:20 115:5,6,13 116:2 <b>similar</b> 31:3 83:22,23,25 84:11,18 85:3 86:14,22 87:2,3 91:22 95:21 97:2,20 98:7 100:8 106:16 107:5 172:21 173:14 178:16 180:23 186:5,6,14,25 191:22 209:9
--	--	---	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

22

<p><b>similarly</b> 106:2</p> <p><b>simple</b> 129:3 133:1</p> <p><b>simply</b> 19:20 20:18 21:4 22:8 63:5 97:12 99:4 118:10 139:19 208:5,7 213:20 260:8</p> <p><b>single</b> 91:16,19,20 92:20</p> <p><b>Sinha</b> 5:7</p> <p><b>sir</b> 12:2 22:14 26:23 37:20 46:12 62:1 117:5,20 171:12,17 189:16 199:3 201:14 202:15 222:25 226:9 239:7 241:5,15 242:24 244:15 245:11 262:24 279:3</p> <p><b>sit</b> 111:21 119:17 168:5 190:14 257:3</p> <p><b>sitting</b> 81:25 124:5 149:9 171:7,24 174:1</p> <p><b>sixth</b> 113:22 114:18</p> <p><b>size</b> 170:10 232:19,21 233:5 236:19,20</p> <p><b>skepticism</b> 60:3</p> <p><b>skill</b> 48:4</p> <p><b>skills</b> 48:6</p> <p><b>skip</b> 15:6</p> <p><b>SKOLNIK</b> 3:8</p> <p><b>skolnika@sec.gov</b> 3:12</p> <p><b>slight</b> 164:11</p> <p><b>slightly</b> 175:20 280:14</p> <p><b>small</b> 170:3 221:22 230:12 230:21 231:4 232:3 234:4 243:16</p> <p><b>small-lot</b> 232:11</p> <p><b>smaller</b> 32:11 87:23 92:3,10 92:11,14,15 93:12 229:6 230:11 245:22</p> <p><b>smiling</b> 188:10</p> <p><b>so-called</b> 56:2 256:2</p> <p><b>software</b> 84:5</p> <p><b>sold</b> 84:4,18 85:3 87:18 91:22 145:7 231:18 232:19</p> <p><b>solid</b> 112:15 114:15</p> <p><b>somebody</b> 46:16 128:20 152:18 207:3</p> <p><b>somebody's</b> 262:1</p> <p><b>someone's</b> 196:18</p> <p><b>somewhat</b> 55:22</p> <p><b>songwriters</b> 277:18</p> <p><b>sorry</b> 17:11,13 24:11 28:18 37:7,10 38:1 40:5 44:21 52:25 53:14 54:15 56:4 57:4 58:4 59:4,5,12,13 70:7 76:1 80:22 82:14 87:19 91:1 94:1 95:4 100:1 101:25 104:4 105:6,9,14</p>	<p>111:5,22 112:1 116:20 117:24 118:6 123:22 126:6 136:4 142:8,9 144:22,23 147:7 158:7 161:18,20 174:3 176:15,16 177:10 188:22 189:1 194:2 209:18 215:22 225:16,17 226:17 230:6 231:17 235:15 237:5 241:9 242:20 249:14 250:8 255:13 264:18 276:16 283:18 284:16 286:1</p> <p><b>sort</b> 11:21 13:22 33:6 35:6 50:11 132:11 158:14 183:3 184:12 201:4 218:17 223:1 267:15 269:3,11 270:4 281:8</p> <p><b>sorts</b> 152:24</p> <p><b>sound</b> 46:5 72:11 141:5 152:21 210:6</p> <p><b>sounds</b> 46:6 75:2 82:23 99:15 211:4</p> <p><b>source</b> 120:15 124:9,15 240:23 241:20 270:4,4</p> <p><b>sources</b> 29:1 47:8 51:1 108:19 109:21</p> <p><b>Southern</b> 1:2 2:2 10:10</p> <p><b>sovereign</b> 223:15</p> <p><b>space</b> 86:7 87:25</p> <p><b>spare</b> 23:8</p> <p><b>speak</b> 151:8,20 152:15</p> <p><b>speaking</b> 97:15 276:25 279:1,12</p> <p><b>specialization</b> 275:16</p> <p><b>specialize</b> 46:20,21</p> <p><b>specific</b> 30:4 47:22 99:3 101:9 114:25 115:10 122:17 141:10 169:22 175:7 205:15 213:24 223:10 224:2 227:25 228:10 230:4 241:12,13 244:21 245:6,10 250:12</p> <p><b>specific-news</b> 246:8</p> <p><b>specifically</b> 18:2 74:4 77:15 100:12 107:16,23 122:1 133:20 134:12 139:2 164:16 169:12 177:12 183:14 228:22</p> <p><b>specifies</b> 114:25</p> <p><b>specify</b> 110:25</p> <p><b>speed</b> 150:13</p> <p><b>spelled</b> 171:2 187:13</p> <p><b>spelling</b> 271:15</p> <p><b>spend</b> 27:25 46:23 73:25</p> <p><b>spending</b> 58:13</p> <p><b>spent</b> 27:17 265:18</p> <p><b>SPMM</b> 79:23</p>	<p><b>spot</b> 96:20 116:15 117:3 122:7,18 123:4,7,15,20 124:23 125:3,8,10,18,21 125:25 126:5,21 127:1,5,8 127:17,24 128:15 129:6 131:14,21 132:5,16 142:20 143:12 144:13 184:2 275:22</p> <p><b>spread</b> 229:17,19 233:18 235:23 236:21</p> <p><b>spreads</b> 31:24 32:2,7 231:1 233:15,16 236:8,24</p> <p><b>stabilize</b> 131:20</p> <p><b>staff</b> 26:14,21 242:9,20,21 243:23 265:9,12,18,20 268:7,10 270:24 271:1 281:9,11,14,15,24 282:10 282:13 283:1</p> <p><b>Stafford</b> 205:6</p> <p><b>stage</b> 88:1</p> <p><b>stages</b> 98:1 99:11</p> <p><b>stake</b> 198:2 199:12,19 208:21</p> <p><b>stamp</b> 121:22</p> <p><b>stand-alone</b> 281:3 284:4,19</p> <p><b>standalone</b> 280:25 284:10 284:13,15</p> <p><b>standard</b> 37:21 38:8,15 81:12 153:24 212:17 223:1 238:1,9 246:22 258:19 269:8</p> <p><b>standards</b> 269:4</p> <p><b>standing</b> 47:17</p> <p><b>stands</b> 149:19</p> <p><b>star</b> 38:9,19,22 40:2,9</p> <p><b>stars</b> 38:10,11,16</p> <p><b>start</b> 14:17 36:9 148:7 154:1 248:13 253:9 266:12</p> <p><b>started</b> 22:17 86:3 154:10</p> <p><b>starting</b> 17:24 85:22</p> <p><b>starts</b> 143:8 160:3 197:23</p> <p><b>state</b> 14:5 21:2 64:7 86:17 106:8 116:14 124:20 257:9 258:17</p> <p><b>stated</b> 37:8 180:8 225:20</p> <p><b>statement</b> 20:17 56:14 116:20 125:13 132:12,14 173:18 196:23 225:25 260:8</p> <p><b>statements</b> 101:10 130:11 256:3</p> <p><b>states</b> 1:1 2:1 10:9 146:9 289:2</p> <p><b>stating</b> 225:2</p> <p><b>statistic</b> 38:6 40:2 42:8,12 42:23 72:5,24 73:4,5</p>	<p><b>statistical</b> 37:22 38:9 41:15 44:1,16,25 63:25 64:22 73:7 75:19 205:7 238:13 250:10,20 259:12</p> <p><b>statistically</b> 19:2 22:1 37:9 40:9,17 41:3 42:16 43:14 44:2 66:1 67:11 69:24 72:12,16 73:1 134:5 151:16 226:11 250:16 256:15,24 257:17,19,23 258:3,6,13,20,23 259:8,25 260:15,18</p> <p><b>statistics</b> 37:18,23 38:16 45:25 66:18 67:1,22 72:21</p> <p><b>Staying</b> 242:19</p> <p><b>steel</b> 79:8 87:25 88:5 89:12 98:16 102:2,5,17 103:4,10 104:16 105:13 106:5 120:23 122:14 193:8</p> <p><b>steelmaking</b> 170:16 194:3,9 198:6</p> <p><b>stenographic</b> 10:21</p> <p><b>step</b> 68:20 140:22 225:18</p> <p><b>sterile</b> 70:19</p> <p><b>stipulations</b> 11:25 12:10</p> <p><b>stock</b> 20:10 31:4,6 32:9 39:17 42:24 102:15,17 103:11 104:17,19 105:3,6 105:12 106:4 108:16 109:16 125:6 134:20 136:11 139:2,10,21,25 140:7,15 144:1,7 148:10 151:23 152:4,13 153:7,23 221:2,9,18 248:12 262:7,9</p> <p><b>stockholders</b> 152:3</p> <p><b>stocks</b> 47:11 102:5,23 110:24 112:15 148:20 236:22 253:7,10</p> <p><b>stories</b> 141:18</p> <p><b>story</b> 50:25</p> <p><b>strategic</b> 221:12</p> <p><b>strategies</b> 280:11</p> <p><b>strategy</b> 203:9,23,23 206:18 277:11 280:5 284:21</p> <p><b>streaming</b> 277:15</p> <p><b>Street</b> 3:5 4:5,12 7:15 46:16 46:24 114:8 115:11</p> <p><b>strength</b> 44:16</p> <p><b>strictly</b> 131:8</p> <p><b>strike</b> 155:22,24</p> <p><b>strong</b> 44:3 82:21 150:12</p> <p><b>structure</b> 128:17,24 186:11 249:3</p> <p><b>studied</b> 228:11 229:19 231:20 238:19 240:7</p> <p><b>studies</b> 20:4 22:23 29:7</p>
---	--	---	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

23

33:19 34:23 49:10 76:12 151:17 154:22 204:23 205:6,7 209:22 229:16 <b>study</b> 29:8,11,12,20 30:2,12 30:17 33:3,14 34:2,13,25 35:5,9 46:9 60:5 76:15 77:24 78:12 82:11,20 84:17,25 85:2 95:16 96:14 96:24 98:20 100:6,13 106:10,23 138:2,25 140:3 150:20 154:13 155:3,4 157:15 158:15,17 161:7 163:3,19 173:9 185:8,20 186:2 187:22 189:15,21 191:6,17 194:12 196:22 213:17 226:6,12,14,23 227:4,16,25 228:6,23 233:6 234:20 237:21 238:8 238:11 243:21 244:5,9 245:19 250:8 264:23 283:5 <b>studying</b> 89:22 195:20 200:21 275:21 <b>stuff</b> 271:16 <b>subheading</b> 147:3 <b>subject</b> 23:20,21 56:22 61:7 61:9 107:3 118:8 178:7,9 193:3 205:17 237:21 266:21 <b>subjected</b> 56:18 <b>subjects</b> 16:1 22:19 <b>submission</b> 265:3 <b>submitted</b> 15:24 22:13 208:12 264:5 <b>subscribed</b> 289:20 <b>subsequent</b> 16:6 <b>subsequently</b> 24:1 30:7 <b>subset</b> 228:18 <b>substantially</b> 210:19 <b>Success</b> 195:24 <b>successor</b> 17:9 22:20 <b>suddenly</b> 137:4 <b>sufficient</b> 30:25 31:10 32:5 173:7 227:18 <b>sufficiently</b> 161:6 187:11,21 189:19 191:24 <b>suggest</b> 48:2 68:3 132:21 <b>suggested</b> 43:8 113:9 <b>suggestion</b> 283:1 <b>suggests</b> 72:20 <b>Suite</b> 4:5 <b>summaries</b> 266:3 <b>summarize</b> 256:13 <b>summarizes</b> 266:5 <b>summarizing</b> 225:2 <b>Summary</b> 7:6 133:21 <b>sunk</b> 219:20	<b>supervision</b> 289:14 <b>supplementary</b> 15:13 <b>supply</b> 194:15 196:4,24 <b>support</b> 42:23 52:19 120:7 122:2 125:1 269:21 <b>supported</b> 41:14 <b>supporting</b> 227:6 <b>supports</b> 41:7 <b>suppose</b> 20:7 30:8 67:18 218:14 280:6 281:5 <b>supposed</b> 105:16 281:4 <b>sure</b> 12:9 15:14 25:21 29:10 30:10 38:13 41:10,24 45:16 46:15 48:13 50:9,9 50:20,21,22 51:3 54:19 57:11,15,23 59:16 62:23 63:20 64:6 65:2,10,11 67:19 68:5,8,14 70:11 73:11 76:21 80:7,14,23 81:21 82:17 101:3 102:3 102:20 103:21 104:13 105:2 106:22 107:21 118:7 118:9 121:6 126:18 127:22 128:24 129:25 132:25 138:10 139:3,7,12,18,22 140:2,20,22 141:3,20 143:24 144:11 145:6 147:10 151:4 153:5,8 160:7,20 167:14,17,18 171:23 172:16,17 173:23 174:14,17 175:10 177:6,7 177:16,21 178:20,25 179:18 183:11,12 185:22 193:10 200:22 205:19 207:15,17 221:5 231:1,22 234:21 235:2 239:23 242:15 244:3,8 246:1,9 247:10 252:1,13 254:4 258:18 262:14 263:10,15 263:16 265:20 266:19,20 269:7 270:20 273:7 274:14 274:20 278:23 279:13,20 280:8,23 282:7,16,23 284:2 <b>surely</b> 45:3 264:9 <b>surmise</b> 212:13 <b>surname</b> 49:16 <b>surprise</b> 74:16,24 218:15 222:17 223:3 <b>surprised</b> 70:25 222:23 223:8 <b>surrendered</b> 196:5 <b>surveyed</b> 59:24 <b>suspended</b> 286:7 <b>suspenders</b> 228:20 <b>Sustainable</b> 145:15,16	<b>swear</b> 10:24 <b>switch</b> 189:12 <b>sworn</b> 11:5 289:7 <b>sync</b> 150:4 <b>synergies</b> 203:12,24 204:7,8 204:15,16,20,21 205:15 206:3 280:11 <b>synergy</b> 204:9 207:6 <b>synthetic</b> 131:7 <b>system</b> 57:11,16 81:13 85:25 267:16 <b>systematic</b> 201:5,16 202:21 226:5 266:16 <hr/> <b>T</b> <hr/> <b>T</b> 72:6 <b>T-E-C-K</b> 166:11 <b>table</b> 39:24 40:1,8 42:6 80:8 147:15,19 149:18 165:9,16 165:17 168:4 <b>tableau</b> 212:15 <b>tables</b> 266:1 <b>tactics</b> 196:1 <b>take</b> 25:18 28:5 39:21 42:5 51:16 59:8 60:7,13 83:17 103:1 107:22 109:2,20 111:7 116:13 119:14 120:2 129:24 130:7 133:20 140:22 141:7 143:1 144:18 144:21 146:3,23 147:6 149:17 150:21 156:4 160:20 164:14 173:11 176:3,7 181:7,19 188:11 192:5,9 195:21 198:12,20 199:8 201:1,24 209:17 216:14 219:4 225:17 234:24 243:19 254:15,18 256:7 262:18 282:14 <b>taken</b> 2:15 60:17 94:13 109:6 133:9 134:18 192:12 235:6 255:17 278:3 288:2 289:10,12 <b>takeover</b> 114:2 118:24 119:3 <b>talented</b> 208:5 <b>talk</b> 13:10 22:17 51:3 76:10 76:22 150:19 158:9 203:25 219:24 220:1 238:25 253:10 259:7 266:8 282:19 <b>talked</b> 35:2 42:13 87:15 156:16,18 164:18 166:19 166:23 169:18 171:3 185:24 228:7 229:16 259:1 263:21 265:8 278:9 <b>talking</b> 29:23 36:9 74:7 88:25 100:12 106:14 132:1	138:6,7 141:11 155:7 196:15 222:24 228:5 248:11 253:6 261:1 281:2 <b>talks</b> 65:23 98:9 <b>tall</b> 12:16 <b>Tape</b> 10:5 <b>target</b> 47:16 50:5,6 204:17 204:22 206:13 223:6 268:5 268:18 <b>targets</b> 46:19 49:6 200:6 224:9 225:4 <b>tasked</b> 61:9 <b>Tata</b> 193:8,18,23 194:3,16 194:17,25 196:23 199:25 200:17 <b>tax</b> 56:18,22 57:1,5,8,10,20 58:2,5,8 <b>taxations</b> 57:14 <b>team</b> 26:24 71:2 74:18 75:10 166:4 171:13 172:11 181:12 202:13,20 264:1 266:16,24 <b>Tech</b> 19:1 <b>technical</b> 135:18 256:17 <b>technically</b> 122:23 274:13 <b>technique</b> 34:9,22 <b>Teck</b> 18:23 165:1 166:11,11 166:16 167:12 168:3,6 177:4 180:2,6 182:6 188:20 <b>Telephone</b> 3:6,19 4:6,13,20 <b>tell</b> 29:8,16 63:17 64:4 70:10 111:9 127:9 213:4 265:11 265:14 282:5 <b>telling</b> 214:22 <b>tells</b> 217:4,12 220:8 <b>ten</b> 23:16 27:3,3,6 48:9 80:9 80:13,16,19,20,23 277:20 <b>tend</b> 146:15 229:5 <b>tendered</b> 258:9 <b>tendering</b> 48:5 218:8 <b>tends</b> 185:17 <b>term</b> 126:4 139:21 151:3 203:2 229:23 231:8 235:13 235:21 244:25 247:23,24 248:4 249:3 261:11 280:9 284:17 <b>terms</b> 33:18 34:17,18 97:19 99:9 124:11,13 125:15 137:24 152:7 162:20 170:8 184:13 185:6 186:13 196:5 196:24 202:16 222:22 229:7 <b>terribly</b> 132:21 <b>territorial</b> 57:13 <b>test</b> 30:22 66:22 70:2,13
--	---	--	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

24

<p>71:2,20  <b>testified</b> 11:5 263:2,5  272:23 273:2  <b>testify</b> 277:3 289:8  <b>testimony</b> 287:4,7  <b>testing</b> 29:13 70:9  <b>Texas</b> 4:5,5  <b>text</b> 15:13 112:9  <b>thank</b> 11:14 24:17 48:12  76:8 90:3 112:3 130:1  133:5 176:19 189:3 235:3  275:8 285:5,7,9,13,17,19  285:20,22,22  <b>thanks</b> 11:10 94:18 256:13  285:25  <b>theoretical</b> 30:17 238:5,6,14  238:15,17 239:1,24  <b>theoretically</b> 239:19  <b>theory</b> 99:12,13 265:19  <b>thereof</b> 289:18  <b>thesis</b> 160:2  <b>thing</b> 13:7 31:9 45:14,21  49:18 71:7 96:4 206:20  214:21 216:9 234:15  <b>things</b> 26:8 31:24,24 32:1  44:1 46:8 47:5 48:15 50:5  50:18 51:11 52:20 53:2  62:25 84:13 87:25 151:17  164:19 177:15 203:24  204:6 206:8 210:5 219:9  221:13 223:14,17 224:10  224:19 228:2 245:17  249:21 264:13 265:22  266:22 269:19 280:21  <b>think</b> 14:15 16:22 18:22 19:1  19:4,5,23 20:16,25 21:18  21:20,22 22:5,10 27:4,6,18  31:8,11 33:11,24 35:6 40:3  42:13 43:24 48:17 51:20  51:21,22 52:3 53:18 55:3  58:12 62:14 63:8,16,25  66:9,12,16 67:21 70:18,22  71:6,14 72:1 73:22,25  75:21 78:17,21 79:11 83:6  85:8 87:10 90:15 91:15  94:4,19 96:15 97:5,25 98:8  98:15,21,24 100:3,19,21  101:2,10 103:17 105:22  107:3,9 108:24 109:1  112:24 113:10 114:17  127:14,22 128:2 132:2  134:15,17 135:7 136:22  137:10 138:16 144:17  149:14 152:2,4 153:24  154:3,11 155:11,18,21  157:2,8,21,25 160:1</p>	<p>161:21 162:2 163:7 164:20  169:18,25 174:6,24 176:8  178:19 183:8,23 184:2  186:18 187:5,23 188:3  191:10 195:4 196:25 200:3  203:23 204:16 205:24  206:10,23 207:5 209:8  211:12,25 212:13 213:9,23  214:5,9 215:10,13,24  218:1,7 219:23 220:11  222:19 223:14,25 224:15  229:1 230:6 232:15 234:23  237:7 239:13 247:2,6  248:1 249:5 250:4,6  252:19 254:9,24 255:24  256:11 258:24 259:20  260:9 262:19 263:9,22  264:8,8,11,12 269:15  271:11 272:8,19 274:6  276:23 277:22,23 280:9,13  280:14 283:15  <b>thinking</b> 16:13,15 48:24  151:24 157:13,20 214:10  284:6  <b>thinks</b> 112:23 135:20  <b>third</b> 43:6 61:16 111:15  270:4  <b>Thomas</b> 1:8 2:8 3:9 4:3 5:5  <b>Thompson</b> 28:24  <b>thought</b> 23:4 44:5 126:9  157:3,9 168:11 196:1  206:4 218:17 251:17  263:14 269:1  <b>three</b> 12:15 38:11 81:15  182:4,7  <b>threshold</b> 39:5 72:20 82:8  230:3,4 231:2 244:11  <b>Thursday</b> 239:21,22 240:2,3  <b>time</b> 10:13,14 13:15 15:22  46:23 51:16,25 52:12  54:17 57:10 58:21,24  59:17,22,22 60:16,20 67:8  67:15,24 73:25 94:12,16  94:22 105:24 108:9 109:5  109:9 112:22 118:17  119:25 120:3,8,10,12  121:3,7,19,22,23 127:14  132:2 133:7,8,12 135:2  140:14,23 164:8 171:21  172:24 179:10 181:1,25  190:18 192:11,15 199:8  202:22 207:16 208:2  209:14 210:17,25 211:2,20  218:11 222:13,14 223:21  225:18 235:5,9 237:2,4  247:9 251:25 252:6,9</p>	<p>254:3 255:22 261:16 262:5  264:4,19 272:17 276:18  278:2,6 284:25 285:3,5,17  285:23 289:11  <b>timeline</b> 202:24  <b>timeliness</b> 223:22  <b>times</b> 83:15 134:10 164:9,18  203:19 216:21 265:9  272:13,15  <b>timing</b> 23:22  <b>Tinto</b> 1:7,7 2:7,7 3:16 8:12  8:13,15,18 10:9 22:22 23:6  23:17,21 45:8 51:7,24  53:16,22 54:3,10,13 55:5,9  55:15 56:18 57:3 58:1  64:10 67:5,16 68:1 69:8  76:25 77:5,9,22,24 78:2,7  78:13 84:17,19 85:2,4  87:18 88:6 91:22 92:1,3,11  95:6,17,18 96:2,14,23  97:14,14,18,20,22 98:20  100:6,13,14,20 103:13  105:7,11 106:11,18,23  113:4,25 114:20 116:4,6  123:21 125:10 126:14  127:18 128:13 131:17,18  134:4 135:9 137:16 138:1  138:5,11,13 139:2,2,25  140:7 143:21 145:4,7,11  145:24 146:8 150:8 151:1  154:16 155:4,10 158:13  159:17 161:7 162:1,25  163:16,20 164:11 167:22  168:7,22 169:5,8,17 170:8  170:22 171:22 172:8,15  174:4,13 175:23 177:1,18  177:24 178:17 179:5,24  180:5,24 181:1 182:3,19  182:21 183:24,25 184:9,15  185:8,20 186:24 187:11,21  188:17 189:7,20 191:5,18  191:22 192:19,21 193:1,6  193:16,25 194:14 195:1,16  198:24 199:1,23 200:16  208:20 209:2,6 210:18  212:19 213:19,21 214:24  216:7 219:20 224:21 225:9  225:20 226:7 227:17  228:11 231:16,19 233:7  234:4 236:25 238:19 241:3  241:12 242:16 243:7 246:5  251:1,10,25 252:15 254:22  276:12,15 277:4,6 279:4  284:6 285:8 288:3  <b>Tinto's</b> 45:10 56:2 58:10,14  62:11,22 63:7,21 64:7,17</p>	<p>64:24 68:11,25 69:15  70:13 79:5 86:18 92:12,16  98:22 100:24 101:11,16,21  108:10,12 109:17 119:3  124:24 125:2,7,16 126:3  126:20 127:2,10 128:16,24  130:6 131:13,22 132:6,15  133:25 139:10 145:18  146:16 156:23 157:1,11  175:14 179:16 199:12  210:19 211:9 231:5 250:11  250:24 251:3,22 252:8  253:20,22  <b>title</b> 39:16 122:10 272:4  <b>titled</b> 118:24 119:16 120:23  130:13 146:25 176:22  216:6  <b>today</b> 10:15,22 12:5,14 13:2  14:21 55:4 111:21 119:17  124:6 129:19 149:10 168:5  171:7,24 174:1 195:18  228:4 285:17,24  <b>today's</b> 10:12 199:11  <b>told</b> 43:3 63:1 65:3 156:6  205:21,22,24 215:10  <b>Tom</b> 11:10,19 24:11 48:8  59:7 60:8 70:9 84:20 89:25  111:22 129:17 138:4 155:1  159:8 176:16 188:22 192:3  274:15 285:22  <b>tone</b> 21:19  <b>tons</b> 198:4,5  <b>top</b> 15:14 23:16 24:2 77:18  80:9,13,16,19,20,23 81:4  81:20 97:11 115:25 121:11  121:13 146:5 149:18  168:15,15,18,19 170:11,13  172:7 180:13 184:7 229:11  229:13 231:6,8 272:21  274:6  <b>topics</b> 16:5,8 22:15 282:19  <b>torture</b> 75:4  <b>total</b> 8:14 178:1,7,14 179:3  180:16 216:6 218:6,15  240:7 243:6  <b>totally</b> 157:1  <b>touched</b> 35:6  <b>trace</b> 241:2,21  <b>track</b> 272:12  <b>tracked</b> 47:8 97:16 149:21  <b>trade</b> 151:12 228:16 230:11  230:14,20 231:21 240:1  243:25 244:17,21 245:8,15  245:20,21  <b>traded</b> 209:23 229:2 233:5  234:8 239:5,11 244:10</p>
---	---	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

25

<b>trader</b> 32:13 232:16 235:19 <b>trades</b> 8:17 30:14 31:4 232:10,11,17,20 236:2,5 236:15 237:14 242:3,8,16 243:17 246:5,6,19,20 261:24 <b>trading</b> 32:9,19 208:24 209:25 227:22 228:15 229:4,6,8,12,22 230:1,9,22 232:2 234:3 238:18 261:17 262:11 <b>transaction</b> 8:16 153:12 203:13 215:2 223:18 229:17 232:2,10,18 233:4 233:19,20 234:5 237:8 243:6,15 246:11 <b>transactions</b> 31:25 32:8,9 32:11,15 207:17 211:20 231:23 233:11,23 237:11 243:7 246:12 <b>transcribed</b> 289:13 <b>transcript</b> 287:4,6 <b>Trends</b> 147:4 <b>tried</b> 97:7 167:11 196:4,23 250:22 269:2 271:13 <b>trips</b> 136:18 <b>trouble</b> 23:8 94:23 <b>troubling</b> 90:15 <b>true</b> 34:20 40:19 41:11 42:19 52:23 56:8,14 57:12 61:6,8,22 78:3,10 81:1 88:8 93:16 113:21 115:17 116:12 190:24 221:7 236:11 238:15 239:13 287:6 <b>truth</b> 289:8,8,9 <b>try</b> 13:12,13 90:5 94:7,24 98:13 109:3 179:14 211:8 211:19 280:13,16 <b>trying</b> 66:18 71:16 78:16 84:10,13,15 85:10,14 86:6 86:9,12,22,23,25 87:6,8 89:17,18 95:1,20 96:3,7 97:17 106:14,15 127:6 132:17 152:1 164:2 169:19 172:25 207:6 217:7 219:6 232:16 234:17 258:18 263:16 266:15 <b>TSR</b> 180:18 181:3 <b>turn</b> 91:18 <b>turned</b> 242:8 <b>turning</b> 169:1 <b>turnover</b> 227:24 229:3 <b>turns</b> 260:24 <b>twice</b> 218:6 <b>two</b> 36:25 37:12 38:10,16	81:11,14 98:3,24 124:9 155:13 182:6,7,9 190:5 193:23 195:15 196:3 204:10 206:8 219:9 233:23 237:12 239:17 251:5 269:19,21 280:21 <b>type</b> 142:23 143:20 249:24 <b>types</b> 209:9 <b>typewriting</b> 289:13 <b>typical</b> 243:12 274:17 282:18 <b>typically</b> 99:10 155:24 175:5 228:17 230:13,21 <b>Tyson's</b> 10:19	<b>unique</b> 80:20,24 236:20 <b>unit</b> 52:5 <b>United</b> 1:1 2:1 10:9 289:2 <b>universes</b> 201:8 <b>University</b> 276:18 <b>unlock</b> 52:21 <b>unpack</b> 49:4 <b>unquote</b> 138:5 <b>unrelated</b> 77:8 79:4 132:11 134:23 <b>unusually</b> 42:24 <b>upgraded</b> 254:22 <b>upgrading</b> 255:18 <b>upper</b> 147:16 <b>upside</b> 134:4 248:18 <b>USA</b> 241:13 <b>use</b> 12:14 16:21 23:11 25:7 25:7 29:11,20 30:2 31:7 35:8,13,19,19 39:5 41:21 41:25 43:8 46:24 47:24 70:21 76:25 78:19 82:22 84:12 99:8 103:6 151:3 156:4 157:1,16 158:16 162:22 163:2 167:19 188:14 203:14 204:14 245:1 259:18 <b>useful</b> 159:16 173:8 174:12 183:23 184:20 185:8,19 186:25 187:22 189:6,20 191:5,16 211:10 259:2 <b>useless</b> 220:22 <b>user</b> 99:17 148:15 <b>uses</b> 82:9 126:12 158:14 180:24 <b>usual</b> 13:9 <b>usually</b> 14:10 47:16	136:16 137:5 144:9 204:21 205:14 206:3,25 207:13,23 213:3 214:11,18,18 215:3 216:6,7,8,19 217:5,15,16 217:18,22,23 218:6,9 219:13,16,23 220:1,3,4 222:5 224:9,18 232:6 247:3,14,23,25 248:5,6,7,8 248:24 249:7 250:2,5 262:11 279:22 280:3,19,24 280:25 283:23 284:2,4,14 284:15,19,22 <b>valuing</b> 84:12 <b>variable</b> 139:6 141:5 <b>variation</b> 236:14 264:6 <b>varies</b> 229:11 <b>variety</b> 29:1 31:2,7 47:4 51:1 81:10 90:13 248:19 278:10 <b>various</b> 16:11 192:2 <b>Vastly</b> 92:14 <b>verify</b> 166:5 <b>version</b> 30:21 113:23 <b>versus</b> 148:11 184:14 207:16 281:3 <b>Vesey</b> 4:12 <b>video</b> 1:14 10:13 11:12 13:8 13:11 14:8 <b>VIDEOCONFERENCE</b> 1:15 <b>videographer</b> 5:8 10:5,15 60:15,19 94:11,15 99:14 99:22 109:4,8 133:6,11 192:10,14 235:4,8 278:1,5 286:3 <b>videotaped</b> 10:6 <b>view</b> 25:2 33:12 51:22 52:12 55:13 66:11 67:21 78:23 87:17 88:5 98:19 99:2 106:9 113:6 153:25 159:15 163:17 166:20 169:3 194:13 200:4 203:17 204:20 205:3,13,17,21,22 206:2 222:20 223:22 224:3 249:18 252:23 260:25 261:4 262:10 264:13 269:2 269:17 <b>viewed</b> 51:14 191:11,23 192:21 199:11 253:4 <b>views</b> 91:24 102:4 205:25 261:9 262:7 <b>Virginia</b> 10:19 <b>Vishny</b> 41:20 <b>volatile</b> 144:10 <b>volume</b> 8:14 32:17,19,20,20 32:23 229:7,8 243:6 244:24 <b>volume-</b> 208:23
--	---	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

26

<b>volumes</b> 31:6 <b>vs</b> 288:3	136:19 <b>weaker</b> 115:1 <b>wealth</b> 47:6 <b>WebEx</b> 10:18 <b>website</b> 142:1,17 <b>Wednesday</b> 239:22 <b>week</b> 120:24 143:3,5,9 <b>week-on-week</b> 122:8,17 123:1 <b>weekly</b> 32:20 <b>weight</b> 210:24 <b>weighted</b> 113:13 208:24 257:15 260:14 <b>weighting</b> 180:25 <b>WEISS</b> 4:18 <b>WEITZMAN</b> 3:21 <b>went</b> 12:6 17:8 18:12 41:6 120:5 124:8,17 215:2 <b>weren't</b> 84:21 237:17 273:13 <b>WHARTON</b> 4:18 <b>whatsoever</b> 138:21 148:5 <b>whereof</b> 289:19 <b>wildly</b> 217:11 <b>willing</b> 64:3 154:8 206:21 <b>willingness</b> 153:12 <b>wind</b> 204:16 <b>winning</b> 150:13 <b>wire</b> 122:13 <b>wise</b> 289:17 <b>wish</b> 47:25 196:19 <b>wished</b> 23:15 <b>witness</b> 6:3 10:25 11:4 17:17 21:18 24:18 26:8 38:1,4 43:2,23 44:21 51:9 52:25 53:2 56:21 59:4,12 60:9 61:9 63:13 68:14 70:5 70:17 72:9 73:20 75:1 80:4 85:7 87:22 89:24 90:4 94:10 99:20,24 102:8 103:23 104:1,3 118:16 127:21 129:14,25 137:19 143:24 152:18,23 158:19 158:25 159:10 161:17 162:12 169:25 178:19 179:8 184:2 185:22 186:18 193:10 196:14 200:3,20 206:7 207:25 210:22 212:22 216:23 220:17 225:1 232:23 235:1 237:5 244:3 246:1,24 247:6,18 249:13,16 255:6 270:8 272:13 273:12 277:10,13 277:25 279:12,14 285:19 285:25 287:1 289:6,19 <b>wonder</b> 163:22 <b>wondered</b> 242:25	<b>word</b> 26:16 50:21 82:22 163:6 181:3 203:14 231:6 245:1 268:1 <b>words</b> 23:6 26:7 32:8 37:9 37:12 45:12,13 50:4 88:21 111:6 150:5 201:8 204:3 220:10 226:19 265:17 266:22 268:13,23,25 271:2 271:12 284:19 <b>work</b> 15:20 22:17 24:8,14 26:24 28:2 41:20 47:5 51:5 61:2 63:25 94:19 124:2 200:13 205:8 238:24 243:20 250:9 262:15 264:19 265:9 268:3 270:15 275:20 276:2 277:6,10,13 277:23 278:14 281:12,15 281:16 282:10,15 <b>worked</b> 26:14 273:5,9 274:2 274:8 276:15 277:15 281:10 <b>working</b> 26:15,21 252:21 268:7 273:3 <b>works</b> 46:16 129:25 <b>world</b> 75:18 171:20 189:10 <b>world's</b> 170:16 172:3,13 173:17 174:10 190:22 <b>worried</b> 104:8 <b>worry</b> 22:24 253:13 <b>worth</b> 21:8,15 22:8 68:16 72:22 75:6 93:1 204:13 215:11 284:7 <b>worthy</b> 191:12,24 <b>wouldn't</b> 20:6,10 27:5 29:11 29:15,16 43:9 62:17 66:6 72:3 77:2,5 83:10 96:15,20 99:10 100:17 102:22 104:23 105:16 113:7 128:5 141:6 187:23 193:12 195:5 226:13,20,22 247:19,20 250:4 253:17 258:14 <b>wow</b> 214:1 215:5 <b>Wrap</b> 120:23 <b>wrest</b> 207:3 <b>write</b> 46:22 47:17 50:25 103:4 109:13 175:6 <b>write-down</b> 20:1 <b>writes</b> 115:25 147:19 149:19 208:19 209:21 <b>writing</b> 179:21 216:24 222:5 265:12 278:15 <b>written</b> 124:11,13 190:10 208:13 283:10 <b>wrong</b> 67:1 73:17 147:8 217:12 269:20 280:15 <b>wrote</b> 15:22 40:24 129:10	256:13 265:13 <hr/> <b>X</b> <b>Xinhua</b> 7:22 110:2 <b>Xstrata</b> 8:5 183:5,19,23 184:6,14 185:7,9,16,19 186:24 187:11,21 188:5 <b>Xstrata's</b> 185:2 188:14 <hr/> <b>Y</b> <b>Yeah</b> 68:14 <b>year</b> 18:6,7,10,11,13 58:12 58:13 93:23 155:21 160:23 162:15 164:20,22,25 167:10 168:4 179:24 198:5 251:2,23 253:19 266:25 <b>years</b> 100:19 101:6,7 211:22 272:20 276:21 <b>yield</b> 245:22 246:13 <b>York</b> 1:2 2:2 3:18,18 4:12,12 4:19,19 10:11 118:3,13 119:19,22 120:12 121:21 159:9 <hr/> <b>Z</b> <b>Zambezi</b> 225:10,21 <b>Zealand</b> 117:24 <b>Zealand-based</b> 118:12 <b>zero</b> 20:21 89:4 135:4,6 268:14 <b>zinc</b> 185:10 <hr/> <b>0</b> <b>0</b> 37:13 213:10,15 214:12 215:2,3 250:17 <b>0.50</b> 208:22 <hr/> <b>1</b> <b>1</b> 10:6 38:12 165:16,17 168:4 198:23 <b>1,500</b> 26:11 <b>1.25</b> 37:1,5,12 <b>1.645</b> 40:15 <b>1.66</b> 37:2,12 <b>1.68</b> 40:2,14 42:11 <b>1.85</b> 42:8,23 <b>1.91</b> 72:5,25 73:5 <b>1.96</b> 38:6 74:23 <b>1/17/13</b> 8:15,17 <b>1:11</b> 133:10,12 <b>10</b> 38:10 40:10,18 41:3,15 42:16,18 43:14 73:1 81:5 82:2 85:14 168:15,18,19 212:15 234:25 267:4 <b>10:30</b> 60:16,17 <b>10:44</b> 60:18,20
--	--	---	--

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

27

<p>100 3:5 27:22 80:8,9,12 110:23 180:21 213:10,15 100,000 231:11,15 243:11 243:14 10019-6064 4:19 101 21:23 72:11 188:25 189:2 10166-0193 3:18 10281 4:12 107 176:7,8,18 178:6 108 180:12 10th 39:21 11 6:6 11:28 94:12,13 11:39 94:14,16 110 7:23 8:8 1100 7:3 275:9,13 1101 7:4 25:15,19,20 61:12 267:10 1108 7:6 267:6 111 7:17 1115 7:8 80:1,2 81:4 1116 7:10 35:22,23 1118 7:12 212:2,5 1127 7:14 39:10,13 1133 7:15 114:9,11 1134 7:17 111:24 112:2,2 1135 7:18 115:20,21 1138 7:19 117:12,15 119:14 1139 7:20 118:18,22 114 7:16 1140 7:21 120:17,19 1144 7:22 110:4,7 1148 7:24 198:9,13,23 115 7:18 1162 8:3 181:4,8 1165 8:5 188:7,10 1166 8:6 175:24 176:2 180:11 117 7:19 188:12,24 118 7:20 11th 109:15 12 47:16 109:5 145:14 257:14 12:00 109:6 12:01 109:7,9 12:30 129:18 12:34 133:7,9 120 7:21 76:4 120-day 239:5 120.07 143:8 1209 8:7 110:15,18 121 202:9,12 1210 8:9 208:8,11 1215 8:10 197:8,11 122.90 143:13</p>	<p>1247 8:12 240:21 241:6,11 1248 8:13 241:10,16,19 1249 8:14 243:1,5 1250 8:17 241:23 242:1 1257 8:19 146:20,24 149:17 1258 8:21 141:22,25 142:1 142:14 126.30 143:10 1285 4:19 130 9:5 133 9:6 13959 1:24 2:19 289:24 14 9:5,7 130:3,6 145:11,13 289:25 141 8:22 146 8:20 15 24:2 168:15,18,19 239:11 158 256:10 159 257:12 16 133:22 134:25 135:18 208:22 263:20 16.50 279:22 280:18,22 283:21 1634 28:7 164 110:1 165 9:8 110:20 166 111:16 167 114:8 168 115:19 116:20 258:2 17 138:13 17-cv-07994-18-DCF 10:11 17-cv-07994-AT-DCF 1:7 2:7 170 116:22,23 117:19 120:15 124:10 174 130:8 175 8:7 176 130:7 17th 22:2 45:7 138:3,16 140:3 225:15 226:8,25 227:16 242:2,4,17 243:5 250:13 18 47:16 181 8:4 186-187 122:8 188 8:5 61:20 19 103:5 143:1 165:15 19.9 198:1 1917670 99:17 194 61:21 195 9:9 197 8:11 1970's 276:1 198 7:24 1980's 205:9 276:1 1995 7:14</p>	<p>2</p> <p>2 73:7 2/21/10 8:9 2:29 192:11,12 2:45 192:13,15 20 103:1 192:4 20-F 181:9 200 3:18 2000 150:1 2004 182:9 2006 182:10 210:11 200626LJG 1:25 2007 58:15 276:22 279:1,7 279:14 2008 164:9 165:19 2010 146:11 147:24 148:4 208:25 2011 8:3,5,6 24:10,16 51:7 55:4,11 56:1,16 58:11 61:3 61:21 62:12 64:8 65:13 66:4 68:10 69:16 70:2,14 71:3,21 74:8,19 75:25 91:11 107:11 108:12,14 109:16,18 117:17 118:3,23 119:10,15 121:1 123:8,19 124:17,23,25 125:7,11,17 126:14 130:6,10 134:1 137:15 141:17 143:3,6 145:8,11 147:24 148:4,24 149:12 165:1 166:13 167:2 167:23 168:5 170:15 171:18 172:4,9 173:16 174:5 176:4 179:24 181:8 182:20 188:5 190:19 192:18,22,25 193:15,25 197:12 198:14 199:23 212:20 213:19 254:21 255:18 279:24 283:14 2012 147:5 251:2,23 252:16 253:19,23 256:16,20 258:5 2013 22:3 45:7 134:19 137:16,25 138:3,14 151:1 195:15 222:17 225:15 226:8 250:13 251:11 252:14 254:19 2014 164:9 165:20 2016 210:11 202)551-4469 3:6 202)772-9245 3:7 2020 1:16 2:18 10:1,12 26:2 287:7,18 288:2 289:21 2021 289:25 20549-5977 3:5 208 8:9 21 71:21 212 7:13 9:6 133:14,18,18</p>	<p>212)212-5353 3:20 212)326-3706 4:13 212)351-4000 3:19 212)373-3449 4:20 212)492-0449 4:21 22 147:6 224 9:7 14:23 15:1 202:4 256:7 225 9:8 165:11,13 229 181:20 23-page 26:10 235 181:19 24 103:2 241 8:12,13,18 243 8:16 249 146:10 25 7:5 209:24 250 4:12 26 1:16 2:18 10:1,12 287:7 288:2 289:21 267 7:7 275 7:3 28 61:21 147:14 208:23 210:18 287 15:15 28th 61:25 62:3,12,21 64:24 65:12 66:4 201:17 202:18 202:22 29 68:10 74:8,19 75:25 202:5 29th 62:12 64:8 65:12 68:18 68:25 69:6,8,16 70:2,14 71:3 74:18 283:14</p> <p>3</p> <p>3 36:25 61:24 120:24 170:16 171:19 214:2 220:9 253:4 276:9 3.02 37:5 3.3 122:8 3.40 143:17 3.5 176:13 3.9 119:3 3:44 235:5,6 300,000 198:4 31 130:13 208:18 32 85:23 108:3 146:3 33 81:6,17 85:23 108:4 3300 4:5 34 146:4 208:17 35 7:11 35.8 210:12,16 36 103:1 106:8 108:1 183:16 209:17 37 108:1 39 7:14 147:23</p>
---	---	--	---

CONFIDENTIAL

Glenn Hubbard,  
6/26/2020

28

<b>3rd</b> 208:25			
<b>4</b>	<b>8</b>		
<b>4</b> 7:8 39:24 79:13 81:4 95:8 145:15 183:9	<b>8</b> 108:12,14 109:16 117:17 118:2,7,11,23 119:15 120:6,11 121:1 123:19 124:17,23 125:11 134:1 137:14 141:17 192:18,22 192:25 193:15 197:12 198:14 199:23 256:16,20 258:4 279:24		
<b>4.2</b> 214:8	<b>80</b> 7:9 28:4		
<b>4.233</b> 218:5	<b>83</b> 209:18		
<b>4/8/11</b> 7:16,17,18,19,20,21 7:23,24 8:8,11	<b>832)239-3939</b> 4:6		
<b>4:03</b> 235:7,9	<b>85</b> 52:1 101:13 109:17 124:24 125:2,16,20 126:20 129:5 209:18 210:9 229:2 239:5 240:9 244:12		
<b>4:59</b> 278:2,3	<b>8th</b> 66:23 67:13 89:5 107:11 108:23 110:3 116:15 117:3 117:7,8 119:8 121:20 124:8 127:8 128:11 134:10 138:21 143:5,10,17 200:18 220:5 257:16		
<b>400,000</b> 198:5			
<b>445</b> 9:9 195:10,13,14			
<b>47</b> 64:14			
<b>4th</b> 143:5			
<b>5</b>	<b>9</b>		
<b>5</b> 7:10 36:1,12,15 38:11 41:1 42:6,6 43:15 73:7 149:17 149:19 252:17,20,24 257:24 258:21	<b>9:29</b> 2:16 10:2,13		
<b>5.6</b> 72:6,25 73:6	<b>90</b> 256:11		
<b>5:11</b> 278:4,6	<b>93-page</b> 15:11		
<b>5:20</b> 2:17 10:2 286:5,7	<b>94</b> 256:10		
<b>5:30</b> 121:4	<b>94th</b> 15:7		
<b>50</b> 64:13 86:3 119:5 180:17 180:19,20 209:24 218:3,5 218:18,20	<b>95</b> 37:24 38:4 39:6 43:6 72:20		
<b>500</b> 150:14	<b>98th</b> 15:6		
<b>500,000</b> 231:11			
<b>52,000</b> 243:8			
<b>57</b> 107:23 108:6,19 109:24 114:7			
<b>577</b> 181:17			
<b>58</b> 107:23 109:12 116:14 120:14 124:19			
<b>6</b>			
<b>6</b> 176:22			
<b>60</b> 85:24 86:1			
<b>61</b> 86:17			
<b>6th</b> 69:9			
<b>7</b>			
<b>7</b> 7:12 119:10 163:9 212:6 212:20 213:19 215:15 217:9			
<b>70</b> 28:4			
<b>717</b> 4:5			
<b>77</b> 208:19			
<b>77002</b> 4:5			
<b>790</b> 40:21			
<b>791</b> 39:23			
<b>7th</b> 118:3,13 119:22,24 143:12,17			